

COMPETENCY TO TRAINING MATRIX

Course #	Competency Description	Proficiency Level
Classified Matter Protection and Control Forum		
1171-25a	Discuss the purpose and scope of DOE Order 5639.8A, Security of Foreign Intelligence Information and Sensitive Compartmented Information Facilities.	Familiarity Level
1171-25b	Describe the interrelationship of the following: + Foreign Intelligence Information + Sensitive Compartmented Information + Other information security programs	Familiarity Level
1171-44a	Discuss the purpose and policy statements associated with the DOE's information security program.	Familiarity Level
1171-44b	Describe the major elements of the information security program.	Familiarity Level
1171-44c	Discuss the duties and responsibilities of the following positions as they pertain to the information security program: + Heads of departmental elements + Heads of field organization + Information security program operations managers Discuss the duties and responsibilities of the following positions as they pertain to the information security program: + Procurement request originators + Contracting officers	Familiarity Level
1171-44d	Describe the facility's chain of responsibility for information security.	Familiarity Level
1171-45a	Discuss the policy set forth in this order.	Familiarity Level
1171-45b	Describe the purpose of safeguards and discuss the types of activities used to accomplish these purposes.	Familiarity Level
1171-45c	Define security.	Working Level
1171-45d	Identify the key program elements of the safeguards and security program and describe the authorities and responsibilities of each.	Familiarity Level
CNA-100 Counterintelligence Awareness for the U.S. Department of Energy		
1171-11a	Discuss the security principle that serves as a basis for the Control of Classified Visits Program.	Familiarity Level
1171-11b	Describe the process by which a U.S. Department of Defense (DoD) employee is approved to visit a U.S. Department of Energy (DOE) contractor site when the visit involves an exchange of secret restricted data and weapon data.	Familiarity Level
CNA-103 Introduction to Counterintelligence Awareness		
1171-11a	Discuss the security principle that serves as a basis for the Control of Classified Visits Program.	Familiarity Level
1171-11b	Describe the process by which a U.S. Department of Defense (DoD) employee is approved to visit a U.S. Department of Energy (DOE) contractor site when the visit involves an exchange of secret restricted data and weapon data.	Familiarity Level
CNA-105 Counterintelligence for the Technical Staff Member		

Course #	Competency Description	Proficiency Level
1171-00a	S&S Courses in Analysis	Familiarity Level
CNA-110 Counterintelligence for Managers		
1171-11a	Discuss the security principle that serves as a basis for the Control of Classified Visits Program.	Familiarity Level
1171-11b	Describe the process by which a U.S. Department of Defense (DoD) employee is approved to visit a U.S. Department of Energy (DOE) contractor site when the visit involves an exchange of secret restricted data and weapon data.	Familiarity Level
CNA-111 Managing the Insider Threat		
1171-00a	S&S Courses in Analysis	Familiarity Level
CNA-140 Counterintelligence for Radiological Assistance Program		
1171-00a	S&S Courses in Analysis	Familiarity Level
CNA-141 Foreign Intelligence Threats to Information Technology		
1171-11a	Discuss the security principle that serves as a basis for the Control of Classified Visits Program.	Familiarity Level
1171-11b	Describe the process by which a U.S. Department of Defense (DoD) employee is approved to visit a U.S. Department of Energy (DOE) contractor site when the visit involves an exchange of secret restricted data and weapon data.	Familiarity Level
CNA-150 The Foreign Intelligence Threat		
1171-11a	Discuss the security principle that serves as a basis for the Control of Classified Visits Program.	Familiarity Level
1171-11b	Describe the process by which a U.S. Department of Defense (DoD) employee is approved to visit a U.S. Department of Energy (DOE) contractor site when the visit involves an exchange of secret restricted data and weapon data.	Familiarity Level
CNA-151 Elicitation at Scientific and Business Meetings		
1171-11a	Discuss the security principle that serves as a basis for the Control of Classified Visits Program.	Familiarity Level
1171-11b	Describe the process by which a U.S. Department of Defense (DoD) employee is approved to visit a U.S. Department of Energy (DOE) contractor site when the visit involves an exchange of secret restricted data and weapon data.	Familiarity Level
CNA-152 Economic Espionage		
1171-11a	Discuss the security principle that serves as a basis for the Control of Classified Visits Program.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-11b	Describe the process by which a U.S. Department of Defense (DoD) employee is approved to visit a U.S. Department of Energy (DOE) contractor site when the visit involves an exchange of secret restricted data and weapon data.	Familiarity Level
CNA-153 Espionage Recruitment and Human Vulnerabilities		
1171-11a	Discuss the security principle that serves as a basis for the Control of Classified Visits Program.	Familiarity Level
1171-11b	Describe the process by which a U.S. Department of Defense (DoD) employee is approved to visit a U.S. Department of Energy (DOE) contractor site when the visit involves an exchange of secret restricted data and weapon data.	Familiarity Level
CNA-154 Technical Collection Threat to the Traveler		
1171-11a	Discuss the security principle that serves as a basis for the Control of Classified Visits Program.	Familiarity Level
1171-11b	Describe the process by which a U.S. Department of Defense (DoD) employee is approved to visit a U.S. Department of Energy (DOE) contractor site when the visit involves an exchange of secret restricted data and weapon data.	Familiarity Level
CNA-155 Counterintelligence Awareness for the Traveler Abroad		
1171-11a	Discuss the security principle that serves as a basis for the Control of Classified Visits Program.	Familiarity Level
1171-11b	Describe the process by which a U.S. Department of Defense (DoD) employee is approved to visit a U.S. Department of Energy (DOE) contractor site when the visit involves an exchange of secret restricted data and weapon data.	Familiarity Level
CNA-170 Terrorism Awareness in the U.S. Department of Energy/NNSA Community		
1171-00a	S&S Courses in Analysis	Familiarity Level
CNA-225 Counterintelligence Automated Investigative Management System (CI-AIMS)		
1171-00a	S&S Courses in Analysis	Familiarity Level
CNA-230 Counterintelligence Analytical Research Database System (CARDS)		
1171-00a	S&S Courses in Analysis	Familiarity Level
CNA-250 U.S. Department of Energy Counterintelligence Staff Course		
1171-00a	S&S Courses in Analysis	Familiarity Level
CNA-270 Terrorism Methods of Operations (MO)		
1171-00a	S&S Courses in Analysis	Familiarity Level
CNA-831 Intellectual Property		

Course #	Competency Description	Proficiency Level
1171-00a	S&S Courses in Analysis	Familiarity Level
CSS-311 Advanced Information Systems Security		
1171-24a	Discuss the onsite management and planning activities for automated information systems security.	Working Level
1171-24b	Discuss the assignment of automated information systems security responsibilities, authorities, and accountability.	Working Level
1171-24c	Discuss the required contents and maintenance of an automated information systems security plan.	Working Level
1171-24d	Perform an evaluation of the automated information systems security plan to verify its currency and conformity with DOE orders.	Working Level
1171-24e	Describe the local statement of threat to computing and information resources.	Working Level
1171-24f	Describe how the automated information systems security organization interfaces with the configuration management and planning processes.	Working Level
1171-24g	Describe how the automated information systems security organization interfaces with the site risk management program.	Working Level
CTA-101DC Introduction to Safeguards and Security		
1171-33a	Define the terms safeguards and security as they apply to the DOE. Provide examples of each.	Familiarity Level
1171-33b	Describe the major safeguards and security objectives within the Department.	Familiarity Level
1171-33c	Describe the major elements of the DOE's Safeguards and Security program.	Familiarity Level
1171-33d	Describe the objective of Integrated Safeguards and Security Management (ISSM).	Familiarity Level
1171-33e	Describe the levels of access authorization used within the DOE.	Familiarity Level
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-45a	Discuss the policy set forth in this order.	Familiarity Level
1171-45b	Describe the purpose of safeguards and discuss the types of activities used to accomplish these purposes.	Familiarity Level
1171-45c	Define security.	Familiarity Level
1171-45d	Identify the key program elements of the safeguards and security program and describe the authorities and responsibilities of each.	Familiarity Level
1171-45e	Discuss the use of risk analysis as it applies to safeguards and security programs.	Familiarity Level
1171-45f	Discuss the purpose of independent assessments of safeguards and security programs.	Familiarity Level
1171-45g	Discuss the purpose of alternative means and deviations including the following terms: + Variance + Waiver + Exception	Familiarity Level

Course #	Competency Description	Proficiency Level
CTA-110 Safeguards and Security Awareness Coordinators Training		
1171-10a	Discuss the purposes for conducting the following types of briefings: + Initial + Comprehensive + Refresher + Termination	Familiarity Level
1171-10b	Identify the topics that should be included in an initial briefing.	Familiarity Level
1171-12a	Describe the general requirements for determining level of access authorization and investigative requirements.	Working Level
1171-12j	Discuss the requirements of the Safeguards and Security Awareness Program.	Working Level
1171-13h	Assess DOE field office and Headquarters compliance with the intent of the requirements/guidance of the Safeguards and Security Awareness Program.	Familiarity Level
CTA-139DV Vulnerability Assessment Overview		
1171-01h	Describe the purpose of access delay in a physical protection system.	Familiarity Level
1171-01i	Describe the type of access delay mechanisms used within the Department.	Familiarity Level
1171-01j	Discuss the following terms: Probability of detection? Delay time	Familiarity Level
1171-01k	Demonstrate the modeling of a physical protection system using an adversary sequence diagram.	Familiarity Level
1171-02c	Discuss the following terms: Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Familiarity Level
1171-03a	Describe the five elements of protection and control planing+ Site-specific characteristics+ Threat+ Protection strategy+ Planning+ Graded Protection	Working Level
1171-03b	Describe how the design basis threat is used in safeguards and security program planning.	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03g	Discuss the programs designed to mitigate radiological / toxicological sabotage.	Working Level
1171-05b	Discuss controls to detect, assess, deter, and prevent unauthorized access to Security Areas.	Familiarity Level
1171-16b	Discuss the function of each of the following nuclear material control programs: + Access Control + Surveillance + Detection/assessment	Working Level
1171-17g	Discuss how vulnerability assessments, performance testing, and performance requirements serve as loss detection elements.	Familiarity Level
1171-28e	Describe the purpose and outcomes of a vulnerability assessment.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-33d	Describe the objective of Integrated Safeguards and Security Management (ISSM).	Familiarity Level
1171-34a	Discuss the following terms: + Abrupt theft + Protracted theft + Diversion + Radiological sabotage + Toxicological sabotage + Industrial sabotage + Espionage	Working Level
1171-34b	Discuss the protection strategies of denial and containment.	Working Level
1171-34c	Discuss the basic adversary types recognized as a DOE threat.	Working Level
1171-35a	Describe how the design basis threat is used in safeguards and security planning.	Working Level
1171-35b	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-35c	Discuss the responsibilities of safeguards and security personnel of in the development of a design basis threat.	Working Level
1171-36a	Discuss the contents of the Site-Specific Security Plan, Facility Descriptions and Operational Plans and the interrelationship between them.	Working Level
1171-36b	Discuss the processes for reviewing and validating site-specific security plans, facility descriptions and operational plans.	Working Level
1171-36c	Discuss the resources necessary to develop a site safeguards and security plan including necessary site documentation and on-call expertise.	Working Level
1171-45a	Discuss the policy set forth in this order.	Working Level
1171-45b	Describe the purpose of safeguards and discuss the types of activities used to accomplish these purposes.	Working Level
1171-45e	Discuss the use of risk analysis as it applies to safeguards and security programs.	Working Level
CTA-140 Vulnerability Assessment Fundamentals		
1171-01k	Demonstrate the modeling of a physical protection system using an adversary sequence diagram.	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-05a	Describe the different security areas.	Familiarity Level
1171-05b	Discuss controls to detect, assess, deter, and prevent unauthorized access to Security Areas.	Familiarity Level
1171-17b	Discuss the concept of defense-in-depth as it applies to material control and accountability.	Working Level
1171-34b	Discuss the protection strategies of denial and containment.	Familiarity Level
1171-34c	Discuss the basic adversary types recognized as a DOE threat.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-37a	Assess the facility's acceptance and validation test for safeguards and security that validate functional requirements and effectiveness of safeguards and security elements that have been implemented and are operating as part of a total system.	Familiarity Level
1171-37b	Assess the contractor's ability to identify and test critical system elements during acceptance and validation tests.	Familiarity Level
CTA-240 ASSESS - ATLAS		
1171-01k	Demonstrate the modeling of a physical protection system using an adversary sequence diagram.	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-07b	Assess the contractor's methods for protecting special nuclear material and vital equipment.	Working Level
1171-17b	Discuss the concept of defense-in-depth as it applies to material control and accountability.	Working Level
CTA-315 Advanced Vulnerability Assessment Baseline Course		
1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Familiarity Level
1171-03a	Describe the five elements of protection and control planing+ Site-specific characteristics+ Threat+ Protection strategy+ Planning+ Graded Protection	Working Level
1171-03b	Describe how the design basis threat is used in safeguards and security program planning.	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03f	Discuss the recapture/recovery or pursuit strategy should containment fail.	Working Level
1171-03i	Describe the requirements for the protection of unclassified irradiated reactor fuel while it is in transit.	Working Level
1171-03j	Discuss the graded approach in relation to the protection of safeguards and security interests.	Working Level
1171-03k	Discuss the requirements of the following protection elements:+ Intrusion detection and assessment systems+ Access control and entry/exit inspections+ Barriers and locks+ Secure storage+ Communications+ Acceptance and validation testing Maintenance+ Posting notices+ Security badges and credentials	Working Level
1171-04g	Discuss the protection provided to vital equipment.	Working Level
1171-05o	Describe the response to an intrusion alarm within a material access area.	Working Level

Course #	Competency Description	Proficiency Level
1171-17c	Discuss the material control and accountability aspects of the site and facility emergency plans.	Working Level
1171-17e	Explain how nuclear materials are categorized using material type, attractiveness levels, and material quantities.	Working Level
1171-17g	Discuss how vulnerability assessments, performance testing, and performance requirements serve as loss detection elements.	Working Level
1171-17i	Discuss the administrative controls designed to prevent and detect material losses or diversions including internal reviews and assessment programs.	Working Level
1171-19a	Discuss the requirements for controlling access to nuclear materials, data, and property.	Working Level
1171-19c	Discuss the graded requirements for the materials surveillance program.	Working Level
1171-22a	Participate in a vulnerability assessment designed to identify and assess the capability for detecting loss of a Category I quantity of Special Nuclear Material.	Demonstrate the ability
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-34c	Discuss the basic adversary types recognized as a DOE threat.	Familiarity Level
1171-35a	Describe how the design basis threat is used in safeguards and security planning.	Familiarity Level
1171-35b	Describe the method used to identify and characterize the range of potential adversary threats.	Familiarity Level
1171-36b	Discuss the processes for reviewing and validating site-specific security plans, facility descriptions and operational plans.	Familiarity Level
1171-41e	Discuss in general the four functional performance areas of nuclear material control.	Familiarity Level
1171-45a	Discuss the policy set forth in this order.	Working Level
CTA-320 VA Facility Characterization and VA Software Modeling		
1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Familiarity Level
1171-03a	Describe the five elements of protection and control planing+ Site-specific characteristics+ Threat+ Protection strategy+ Planning+ Graded Protection	Working Level
1171-03b	Describe how the design basis threat is used in safeguards and security program planning.	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03f	Discuss the recapture/recovery or pursuit strategy should containment fail.	Working Level

Course #	Competency Description	Proficiency Level
1171-03i	Describe the requirements for the protection of unclassified irradiated reactor fuel while it is in transit.	Working Level
1171-03j	Discuss the graded approach in relation to the protection of safeguards and security interests.	Working Level
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-35a	Describe how the design basis threat is used in safeguards and security planning.	Familiarity Level
1171-35b	Describe the method used to identify and characterize the range of potential adversary threats.	Familiarity Level
1171-36b	Discuss the processes for reviewing and validating site-specific security plans, facility descriptions and operational plans.	Familiarity Level

CTA-325 VA Explosive Effects Modeling

1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Familiarity Level
1171-03a	Describe the five elements of protection and control planing+ Site-specific characteristics+ Threat+ Protection strategy+ Planning+ Graded Protection	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03j	Discuss the graded approach in relation to the protection of safeguards and security interests.	Working Level
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-35a	Describe how the design basis threat is used in safeguards and security planning.	Familiarity Level
1171-35b	Describe the method used to identify and characterize the range of potential adversary threats.	Familiarity Level

CTA-330 Chemical/Biological Weapons and Radiological Sabotage VAs

1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Familiarity Level
1171-03a	Describe the five elements of protection and control planing+ Site-specific characteristics+ Threat+ Protection strategy+ Planning+ Graded Protection	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level

Course #	Competency Description	Proficiency Level
1171-03g	Discuss the programs designed to mitigate radiological / toxicological sabotage.	Working Level
1171-03j	Discuss the graded approach in relation to the protection of safeguards and security interests.	Working Level
1171-17c	Discuss the material control and accountability aspects of the site and facility emergency plans.	Working Level
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-35a	Describe how the design basis threat is used in safeguards and security planning.	Familiarity Level
1171-35b	Describe the method used to identify and characterize the range of potential adversary threats.	Familiarity Level
CTA-335 LSPTs, Exercises, and Protocol Documents		
1171-01k	Demonstrate the modeling of a physical protection system using an adversary sequence diagram.	Working Level
1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Working Level
1171-03a	Describe the five elements of protection and control planing+ Site-specific characteristics+ Threat+ Protection strategy+ Planning+ Graded Protection	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03f	Discuss the recapture/recovery or pursuit strategy should containment fail.	Working Level
1171-03i	Describe the requirements for the protection of unclassified irradiated reactor fuel while it is in transit.	Working Level
1171-03j	Discuss the graded approach in relation to the protection of safeguards and security interests.	Working Level
1171-08a	Assist in designing and evaluating a force-on-force performance test.	Working Level
1171-08b	Assist in designing and evaluating an emergency management performance test.	Working Level
1171-08c	Assist in designing and evaluating a limited scope performance test of protective forces.	Working Level
1171-17g	Discuss how vulnerability assessments, performance testing, and performance requirements serve as loss detection elements.	Working Level
1171-22a	Participate in a vulnerability assessment designed to identify and assess the capability for detecting loss of a Category I quantity of Special Nuclear Material.	Demonstrate the ability
1171-33f	Describe the graded approach policy.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-34c	Discuss the basic adversary types recognized as a DOE threat.	Familiarity Level
1171-35a	Describe how the design basis threat is used in safeguards and security planning.	Familiarity Level
1171-35b	Describe the method used to identify and characterize the range of potential adversary threats.	Familiarity Level
1171-36b	Discuss the processes for reviewing and validating site-specific security plans, facility descriptions and operational plans.	Familiarity Level
1171-37a	Assess the facility's acceptance and validation test for safeguards and security that validate functional requirements and effectiveness of safeguards and security elements that have been implemented and are operating as part of a total system.	Familiarity Level
1171-37c	Discuss the required frequency of performance testing.	Working Level
CTA-340 Tabletop VAs, JCATS, and Neutralization		
1171-03a	Describe the five elements of protection and control planing+ Site-specific characteristics+ Threat+ Protection strategy+ Planning+ Graded Protection	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03f	Discuss the recapture/recovery or pursuit strategy should containment fail.	Working Level
1171-03i	Describe the requirements for the protection of unclassified irradiated reactor fuel while it is in transit.	Working Level
1171-03j	Discuss the graded approach in relation to the protection of safeguards and security interests.	Working Level
1171-04b	Describe procedures to prevent and detect unauthorized access to a storage repository.	Working Level
1171-04g	Discuss the protection provided to vital equipment.	Working Level
1171-07b	Assess the contractor's methods for protecting special nuclear material and vital equipment.	Working Level
1171-08a	Assist in designing and evaluating a force-on-force performance test.	Demonstrate the ability
1171-08c	Assist in designing and evaluating a limited scope performance test of protective forces.	Demonstrate the ability
1171-17g	Discuss how vulnerability assessments, performance testing, and performance requirements serve as loss detection elements.	Working Level
1171-22a	Participate in a vulnerability assessment designed to identify and assess the capability for detecting loss of a Category I quantity of Special Nuclear Material.	Demonstrate the ability
1171-33f	Describe the graded approach policy.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-34c	Discuss the basic adversary types recognized as a DOE threat.	Familiarity Level
1171-35a	Describe how the design basis threat is used in safeguards and security planning.	Familiarity Level
1171-35b	Describe the method used to identify and characterize the range of potential adversary threats.	Familiarity Level
1171-36b	Discuss the processes for reviewing and validating site-specific security plans, facility descriptions and operational plans.	Familiarity Level

CTA-345 Integration of All VA Tools, Processes and Outputs

1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Familiarity Level
1171-03a	Describe the five elements of protection and control planing+ Site-specific characteristics+ Threat+ Protection strategy+ Planning+ Graded Protection	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03j	Discuss the graded approach in relation to the protection of safeguards and security interests.	Working Level
1171-07b	Assess the contractor's methods for protecting special nuclear material and vital equipment.	Working Level
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-35a	Describe how the design basis threat is used in safeguards and security planning.	Familiarity Level
1171-35b	Describe the method used to identify and characterize the range of potential adversary threats.	Familiarity Level
1171-36b	Discuss the processes for reviewing and validating site-specific security plans, facility descriptions and operational plans.	Familiarity Level

CTA-345 Integration of All VA Tools, Processes, and Outputs

1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Familiarity Level
1171-03a	Describe the five elements of protection and control planing+ Site-specific characteristics+ Threat+ Protection strategy+ Planning+ Graded Protection	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level

Course #	Competency Description	Proficiency Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03j	Discuss the graded approach in relation to the protection of safeguards and security interests.	Working Level
1171-07b	Assess the contractor's methods for protecting special nuclear material and vital equipment.	Working Level
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-35a	Describe how the design basis threat is used in safeguards and security planning.	Familiarity Level
1171-35b	Describe the method used to identify and characterize the range of potential adversary threats.	Familiarity Level
1171-36b	Discuss the processes for reviewing and validating site-specific security plans, facility descriptions and operational plans.	Familiarity Level
Explosives Detection ITV		
1171-00a	S&S Courses in Analysis	Familiarity Level
FIT-110 Foreign Access Central Tracking System Training		
1171-00a	S&S Courses in Analysis	Familiarity Level
FIT-130DE Foreign Visits and Assignments Host Training		
1171-00a	S&S Courses in Analysis	Familiarity Level
FIT-150 Exchange Visitor Program Training		
1171-00a	S&S Courses in Analysis	Familiarity Level
General Technical Base Course		
1146-01a-07	Identify and describe the three forces that are found within a nucleus.	Familiarity Level
1146-01b-07	Define the terms "mass defect" and "binding energy" and discuss how they are related	Familiarity Level
1146-01c-07	Describe the following processes, and trace the decay chain for a specified nuclide on the chart of the nuclides: * Alpha decay, * Beta-minus decay, * Beta-plus decay, * Electron capture.	Familiarity Level
1146-01d-07	Define the following terms: * Radioactivity, * Radioactive decay constant, * Activity, * Radioactive half-life, * Radioactive equilibrium.	Familiarity Level
1146-01e-07	Describe the following neutron-nucleus interactions: * Elastic scattering, * Inelastic scattering.	Familiarity Level
1146-01f-07	Compare and contrast capture (absorption), fission, and particle ejection nuclear reactions.	Familiarity Level
1146-02a-07	Using the liquid drop model, explain the fission process.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-02b-07	Compare and contrast the characteristics of fissile material, fissionable material, and fertile material.	Familiarity Level
1146-02c-07	Discuss the various energy releases that result from the fission process.	Familiarity Level
1146-02d-07	Define the term "criticality" and explain how criticality is detected.	Familiarity Level
1146-02e-07	List five factors that affect criticality.	Familiarity Level
1146-02f-07	Identify the hazards that result from an unwanted criticality.	Familiarity Level
1146-02g-07	Explain the double contingency principle as it relates to criticality control.	Familiarity Level
1146-02h-07	Discuss the potential hazards associated with accidental/unwanted criticality.	Familiarity Level
1146-03a-07	Define the term "ionizing radiation."	Familiarity Level
1146-03b-07	Describe how nuclear radiation is generated.	Familiarity Level
1146-03c-07	Describe each of the following forms of radiation in terms of structure, electrostatic charge, interactions with matter, and penetration potential: * Alpha, * Gamma, * Beta, * Neutron (slow and fast).	Familiarity Level
1146-03d-07	Discuss the types of materials that are best suited for shielding the radiation types listed in 3c.	Familiarity Level
1146-03e-07	Describe the biological effects of ionizing radiation (acute and chronic).	Familiarity Level
1146-03f-07	Discuss the primary hazards to the human body (the whole body or the skin or that are internal) of each type of radiation.	Familiarity Level
1146-03g-07	Discuss radiation dose, including the terms rad, rem, roentgen, and international standard units (SI), and how it is measured.	Familiarity Level
1146-03h-07	Define the term "quality factor" and discuss its application to radiation.	Familiarity Level
1146-03i-07	Discuss the meaning of ALARA and describe the basic methods for achieving ALARA.	Familiarity Level
1146-03j-07	Discuss the hazards, safe handling, storage requirements, and operational practices for each of the following nuclides in their various forms: * Plutonium, * Uranium, * Tritium.	Familiarity Level
1146-04a-07	Define the term "contamination" and list three types of contamination.	Familiarity Level
1146-04b-07	Describe three ways to control contamination.	Familiarity Level
1146-04c-07	Describe how contamination is detected.	Familiarity Level
1146-04d-07	Describe three ways contamination could enter the body and the methods used to prevent internal contamination.	Familiarity Level
1146-04e-07	Describe the methods used for internal dose determination.	Familiarity Level
1146-04f-07	Describe the types of personal protective equipment (PPE).	Familiarity Level
1146-04g-07	Describe the potential effects of radioactive contamination outside contamination areas.	Familiarity Level
1146-05a-07	Describe the proper use and function of and radiation detected by different types of thermoluminescent dosimeters and self-reading dosimetry.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-05b-07	State the purpose and function of the following radiation-monitoring systems: * Criticality, * Area, * Process, * Airborne.	Familiarity Level
1146-06a-07	Discuss the purpose and general requirements of 10 CFR 835, ?Occupational Radiation Protection,? including the following: * Access training, * Dose limits, * Posting types and uses, * Access requirements, * Differences in radiological terminology between the 1998 and 2007 revisions of 10 CFR 835.	Familiarity Level
1146-06b-07	Discuss the purpose of and general guidance provided under DOE-STD-1098-99, Radiological Control.	Familiarity Level
1146-07a-07	Discuss the following terms and the differences among them: * Low-level radioactive waste, * Hazardous waste, * Transuranic waste, * High-level radioactive waste, * Mixed hazardous waste.	Familiarity Level
1146-07b-07	Describe potential sources of each of the following types of waste in a DOE facility: * Low-level radioactive waste, * Hazardous waste, * Transuranic waste, * High-level radioactive waste, * Mixed hazardous waste.	Familiarity Level
1146-07c-07	Discuss the various types of storage, treatment, and disposal used to manage the following types of waste: * Low-level radioactive waste, * Hazardous waste, * Transuranic waste, * High-level radioactive waste, * Mixed hazardous waste.	Familiarity Level
1146-08a-07	Discuss the purpose of the following environmental laws as they apply to the Department and the contractors that operate its facilities: * National Environmental Policy Act (NEPA), * Resource Conservation and Recovery Act (RCRA), * Comprehensive Environmental Response, Compensation, and Liability Act-Superfund Act (CERCLA).	Familiarity Level
1146-08b-07	Using references, discuss the purpose of the following environmental laws as they apply to the Department and the contractors that operate its facilities: * Clean Water Act (CWA), including the National Pollution Discharge Elimination System (NPDES), * Clean Air Act (CAA), * Emergency Planning and Community Right-To-Know Act (EPCRA), * Federal Facilities Compliance Act (FFCA), * Pollution Prevention Act of 1990 (PPA), * Safe Drinking Water Act (SDWA), * Superfund Amendment Reauthorization Act (SARA), * Toxic Substance Control Act (TSCA), * Solid Waste Disposal Act (SWDA).	Familiarity Level
1146-08c-07	Using the following documents as references, discuss their purpose and general requirements: * DOE O 450.1, Admin. Chg.1, Environmental Protection Program, * DOE O 451.1 B, Chg. 1 (formerly DOE Order 5440.1), National Environmental Policy Act Compliance Program, * DOE O 435.1, Chg. 1, Radioactive Waste Management, * DOE Order 5400.5, Chg. 2, Radiation Protection of the Public and the Environment.	Familiarity Level
1146-08d-07	Using DOE O 450.1 as a reference, discuss the concept of an Environmental Management System.	Familiarity Level
1146-08e-07	Using DOE Order 5400.5 as a reference, discuss the concept of maintaining doses to the public and to the environment as far below dose limits and constraints as is reasonably achievable (i.e., ALARA).	Familiarity Level
1146-09a-07	Using 29 CFR 1910.120 as a reference, discuss its purpose, as it applies to the Department and the contractors that operate its facilities, with respect to the following: * Cleanup operations, * Corrective actions, * Voluntary clean-up operations, * Operations involving hazardous wastes, * Emergency response operations.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-09b-07	Using 29 CFR 1910.120 as a reference, discuss the role of the Department in the identification, assessment, and reaction to potential risks posed by hazardous wastes that exist at Department sites.	Familiarity Level
1146-09c-07	Describe the linkage between 10 CFR 851, "Worker Safety and Health Program," and 29 CFR 1910.120.	Familiarity Level
1146-10a-07	Using NEPA as a reference, discuss the Department's responsibilities associated with NEPA and the potential consequences of noncompliance with NEPA.	Familiarity Level
1146-10b-07	Using RCRA as a reference, discuss the Department's responsibilities associated with RCRA and the potential consequences of noncompliance with RCRA.	Familiarity Level
1146-11a-07	Explain the objective of ISM.	Familiarity Level
1146-11b-07	Describe how the seven guiding principles in the ISM policy are used to implement an integrated safety management philosophy.	Familiarity Level
1146-11c-07	Describe the five core safety management functions in the ISM policy and discuss how they provide the necessary structure for work activities.	Familiarity Level
1146-11d-07	Identify and discuss existing Department manuals, guides, standards, and other documents and practices that support implementation of ISM, including the following: * DOE M 450.4-1, Integrated Safety Management System Manual, * DOE G 450.4-1B, Integrated Safety Management System Guides, * Standards/Requirements Identification Documents (S/RIDs) and Work Smart Standards, * Contract reform and performance-based contracting.	Familiarity Level
1146-11e-07	Discuss the purpose, content, and application of DOE P 450.4, Safety Management System Policy.	Familiarity Level
1146-11f-07	Discuss the relationship of the DEAR Clause 970.5223-1, "Integration of Environment, Safety and Health into Work Planning and Execution," to the ISM process.	Familiarity Level
1146-11g-07	Describe the requirements in 10 CFR 830 Subpart A and DOE O 414.1C to integrate the ISM system description with the quality assurance program.	Familiarity Level
1146-12a-07	Discuss the requirements for the development and approval of worker safety and health programs.	Familiarity Level
1146-12b-07	Describe management responsibilities and worker rights and responsibilities.	Familiarity Level
1146-12c-07	Describe hazard identification, assessment, prevention, and abatement.	Familiarity Level
1146-12d-07	Discuss applicable safety and health standards.	Familiarity Level
1146-12e-07	Discuss the process for obtaining a variance from a safety and health standard.	Familiarity Level
1146-12f-07	Discuss the 10 CFR 851 enforcement process.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-13a-07	Using the following documents as references, discuss the purpose of 29 CFR 1910, "Occupational Safety and Health Standards"; 29 CFR 1926, "Safety and Health Regulations for Construction Industry"; and 29 CFR 1960, "Basic Program Elements for Federal Employee Occupational Safety and Health and Related Matters."	Familiarity Level
1146-13b-07	Discuss the regulatory interfaces between the Occupational Safety and Health Administration (OSHA) and other regulatory agencies.	Familiarity Level
1146-13c-07	Describe DOE's responsibilities with respect to the Occupational Safety and Health Act.	Familiarity Level
1146-13d-07	Discuss workplace inspection techniques.	Familiarity Level
1146-13e-07	Discuss the major components of the OSHA hazard communication protocol.	Familiarity Level
1146-13f-07	Discuss how the OSHA Rule is invoked on DOE Federal and contractor staff by 10 CFR 851 and DOE O 440.1, respectively.	Familiarity Level
1146-14a-07	Discuss the critical aspects of fire prevention, fire response planning, and control of fires.	Familiarity Level
1146-14b-07	Describe fire hazards that could affect the safety of facility personnel.	Familiarity Level
1146-14c-07	Discuss the key elements of the National Fire Protection Association (NFPA) Life Safety Code.	Familiarity Level
1146-14d-07	Discuss the purpose of a fire hazard analysis.	Familiarity Level
1146-14e-07	Describe the characteristics of and the methods/agents used to extinguish the following classes of fires: * Class A, * Class B, * Class C, * Class D.	Familiarity Level
1146-14f-07	Discuss the key components and use of building fire protection equipment, including detection, alarm, and communication systems, and extinguishing systems (automatic and manual).	Familiarity Level
1146-15a-07	Discuss general safety precautions for working near low voltage electrical equipment and high voltage electrical equipment.	Familiarity Level
1146-15b-07	Describe basic electrical isolation devices and methods.	Familiarity Level
1146-15c-07	Describe how safety considerations differ for alternating current and direct current.	Familiarity Level
1146-15d-07	Describe basic office electrical safety precautions.	Familiarity Level
1146-15e-07	Discuss NFPA 70E, Standard for Electrical Safety in the Workplace.	Familiarity Level
1146-16a-07	Define the term "industrial hygiene," including the elements of anticipation, recognition, evaluation, and control of health hazards in the workplace.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-16b-07	Discuss basic industrial hygiene concepts and terminology, including the following: * Routes of exposure (inhalation, ingestion, dermal injection), * Dose and toxicity (acute, chronic, concentration), * Exposure limits [permissible exposure limit (PEL), time-weighted average (TWA), threshold limit values (TLV), short term exposure limit (STEL), ceiling, action level, parts per million (PPM), milligrams per cubic meter (mg/m3)], * Hierarchy of controls (engineering, substitution, administrative, PPE), * Health hazards (chemical, physical, biological), * Key elements of a carcinogen control program, including carcinogenic chemicals and asbestos control.	Familiarity Level
1146-16c-07	Discuss the key elements (exposure assessment and monitoring, engineering controls, respiratory protection, PPE and clothing, housekeeping, labeling, training, medical surveillance, record keeping) of an industrial hygiene program.	Familiarity Level
1146-16d-07	Discuss industrial hygiene requirements as found in the following regulations: * 10 CFR 850, ?Chronic Beryllium Disease Prevention Program?, * 10 CFR 851, ?Worker Safety and Health Program?.	Familiarity Level
1146-16e-07	Discuss the key elements of a hazard communication program and the use of material safety data sheets.	Familiarity Level
1146-16f-07	Discuss the importance of the following types of equipment used for personnel protection and safety: * Eye protection, * Ear protection, * Protective clothing/gloves, * Respiratory protection.	Familiarity Level
1146-17a-07	Discuss the purpose of DOE O 5480.19, Conduct of Operations Requirements for DOE Facilities.	Familiarity Level
1146-17b-07	State the eighteen chapters in attachment 1 of DOE Order 5480.19, and discuss how each chapter contributes to an effective and safe operational environment.	Familiarity Level
1146-17c-07	Discuss how each of the following Orders contributes to a proper conduct of operations environment: * DOE O 231.1A, Environment, Safety, and Health Reporting, * DOE O 433.1A, Maintenance Management Program for DOE Nuclear Facilities, * DOE O 414.1C, Quality Assurance.	Familiarity Level
1146-17d-07	Discuss proper critique principles and describe a proper critique process, including key elements.	Familiarity Level
1146-17e-07	Define the term ?root cause? and explain its importance in operational safety.	Familiarity Level
1146-17f-07	Define the term ?lessons learned? and explain their importance in operational safety.	Familiarity Level
1146-17g-07	Describe stop work authority and the role of personnel in its application.	Familiarity Level
1146-17h-07	Describe the key elements of a lockout/tagout system.	Familiarity Level
1146-18a-07	State the purpose of DOE O 231.1A, Environment, Safety, and Health Reporting.	Familiarity Level
1146-18b-07	Define the following terms: * Event, * Condition, * Facility, * Notification report, * Occurrence report, * Reportable occurrence, * Facility representative.	Familiarity Level
1146-18c-07	Discuss the occurrence-reporting responsibilities of a facility representative.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-18d-07	State the different categories of reportable occurrences and discuss each.	Familiarity Level
1146-18e-07	State the major criteria groups of categorized occurrences and discuss each.	Familiarity Level
1146-19a-07	Discuss the objectives and applicability of the DOE quality requirements, including the relationship between 10 CFR 830 Subpart A and DOE O 414.1C, and the relationship between DOE quality requirements and American National Standard ASME NQA-1 for nuclear facility applications.	Familiarity Level
1146-19b-07	Discuss 10 CFR 830.4, "General Requirements"; 10 CFR 830, Subpart A, "Quality Assurance Requirements"; and DOE O 414.1C, "Requirements"; including the Federal responsibilities and the applicability of the requirements to DOE and its contractors.	Familiarity Level
1146-19c-07	Describe, in general terms, the content and objectives of the quality assurance criteria in the following categories, as found in DOE O 414.1C: * Management, * Performance, * Assessment.	Familiarity Level
1146-19d-07	Discuss the quality requirements in the following attachments (and their supporting implementing guides) of DOE O 414.1C, how the quality requirements become nuclear safety requirements for contractors, and how they apply to Federal organizations: * Attachment 3, Suspect/Counterfeit Items Prevention, and the supporting guide, DOE G 414.1-3, * Attachment 4, Corrective Action Management Program, and the supporting guide, DOE G 414.1-5, * Attachment 5, Safety Software Quality Requirements, and the supporting guide, DOE G 414.1-4.	Familiarity Level
1146-19e-07	Describe the Federal responsibilities for review, approval, and oversight of contractor quality assurance programs developed under 10 CFR 830 and DOE O 414.1C.	Familiarity Level
1146-20a-07	Describe the relevant requirements, purpose, interrelationships, and importance of the following regulations and directives: * 10 CFR 830, "Nuclear Safety Management", * 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response", * DOE O 151.1C, Comprehensive Emergency Management, * DOE G 151.1-1A, Emergency Management Fundamentals and the Operational Emergency Base Program: Emergency Management Guide, * DOE G 151.1-2, Technical Planning Basis: Emergency Management Guide, * DOE G 151.1-3, Programmatic Elements: Emergency Management Guide, * DOE G 151.1-4, Response Elements: Emergency Management Guide (CON'T.)*	Familiarity Level
1146-20aa-07	(CON'T.) * DOE G 151.1-5, Biosafety Facilities: Emergency Management Guide.	Familiarity Level
1146-20b-07	State what is meant by an operational emergency.	Familiarity Level
1146-20c-07	Describe the purpose of a facility emergency plan and implementing procedures.	Familiarity Level
1146-20d-07	Discuss the requirements for developing the hazards survey and the emergency planning hazards assessment.	Familiarity Level
1146-20e-07	Describe the key roles and safety considerations during emergency response: * National Incident Management System, * Incident Command System, * Incident commander, * Emergency director.	Familiarity Level
1146-20f-07	Discuss the requirements for testing emergency plans and for interfacing with state and local officials and the public.	Familiarity Level
1146-21a-07	Describe the purpose of the USQ process.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-21b-07	Discuss the reasons for performing a USQ determination.	Familiarity Level
1146-21c-07	Define and discuss key USQ terms.	Familiarity Level
1146-21d-07	Describe the situations that require a USQ determination.	Familiarity Level
1146-21e-07	Define the conditions for a USQ.	Familiarity Level
1146-21f-07	Describe contractor responsibilities for performing USQ determinations.	Familiarity Level
1146-21g-07	Describe site actions for identified potential inadequacy of previous safety analyses.	Familiarity Level
1146-21h-07	Discuss site actions to be taken for a USQ.	Familiarity Level
1146-21i-07	Discuss the qualification and training requirements for personnel performing safety evaluations.	Familiarity Level
1146-22a-07	Define and compare the terms "hazard" and "risk."	Familiarity Level
1146-22b-07	Explain and compare the terms "safety basis," "design basis," and "authorization basis."	Familiarity Level
1146-22c-07	Discuss the relationship of DSAs to TSRs.	Familiarity Level
1146-22d-07	Describe the contractor responsibilities for TSRs and DSAs.	Familiarity Level
1146-22e-07	Define the following terms and discuss the purpose of each: * Safety limit, * Limiting control settings, * Limiting conditions for operation, * Surveillance requirements.	Familiarity Level
1146-22f-07	Discuss the possible source documents that may be used in developing TSRs.	Familiarity Level
1146-22g-07	Discuss the conditions that constitute a violation of TSRs.	Familiarity Level
1146-22h-07	State the general requirements for a DSA and for a preliminary documented safety analysis.	Familiarity Level
1146-23a-07	Discuss the purpose and applicability of DOE O 420.1B, Facility Safety.	Familiarity Level
1146-23b-07	Discuss the requirements imposed by DOE O 420.1B on the contractors that operate DOE nuclear facilities.	Familiarity Level
1146-23c-07	Discuss, in general terms, the focus and the content of the following sections of DOE O 420.1B: * Nuclear safety, * Fire protection, * Nuclear criticality safety, * Natural phenomena hazards mitigation, * Explosives safety, * Safety systems engineer and configuration management.	Familiarity Level
1146-24a-07	Discuss the purpose and scope of DOE P 226.1A, Department of Energy Oversight Policy.	Familiarity Level
1146-24b-07	Discuss DOE's oversight model.	Familiarity Level
1146-24c-07	Describe the roles and responsibilities of the Central Technical Authorities, the Chief of Defense Nuclear Safety and the Chief of Nuclear Safety, program offices and field offices, facility representatives, and safety system oversight personnel.	Familiarity Level
1146-24d-07	Describe the roles and responsibilities of the DOE's Office of Independent Oversight.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-24e-07	Describe ?assurance systems? as found in DOE P 226.1.	Familiarity Level
1146-24f-07	Describe the attributes of effective oversight.	Familiarity Level
1146-24g-07	Discuss the requirements imposed by DOE O 226.1 on the contractors that operate DOE nuclear facilities.	Familiarity Level
1146-24h-07	Describe criteria review and approach documents and their use in the performance of oversight activities.	Familiarity Level
1146-24i-07	Describe the role of the Defense Nuclear Facilities Safety Board in oversight of DOE defense nuclear facilities.	Familiarity Level
1146-25a-07	Describe the objectives of DOE O 210.2, DOE Corporate Operating Experience Program.	Familiarity Level
1146-25b-07	Describe the types of information that are collected and analyzed.	Familiarity Level
1146-25c-07	Describe the types of operating experience reports that are developed.	Familiarity Level
1146-26a-07	Describe the accident investigation process.	Familiarity Level
1146-26b-07	Describe the roles and responsibilities of key participants in accident investigations.	Familiarity Level
1146-26c-07	Describe accident investigation data collection and data analysis techniques.	Familiarity Level
1146-26d-07	Describe the development of conclusions and judgments of need.	Familiarity Level
1146-27a-07	State the purpose of DOE O 410.1, Central Technical Authority Responsibility Regarding Nuclear Safety Requirements.	Familiarity Level
1146-27b-07	Define the following terms: * Exception, * Exemption.	Familiarity Level
1146-27c-07	List all the documents and directives that require Central Technical Authorities/Chief of Nuclear Safety/Chief of Defense Nuclear Safety concurrence before they are issued.	Familiarity Level
1146-27d-07	State the responsibilities of the Central Technical Authorities.	Familiarity Level
1146-27e-07	State the responsibilities of the Chief of Nuclear Safety and of the Chief of Defense Nuclear Safety.	Familiarity Level
1146-28a-07	Discuss information security programs, including control of classified materials, as described in DOE M 470.4-4, Information Security.	Familiarity Level
1146-28b-07	Discuss physical protection programs, including security areas, intrusion detection, and access controls, as described in DOE M 470.4-2, Physical Protection.	Familiarity Level
1146-28c-07	Describe how the design basis threat is used in safeguards and security planning in accordance with DOE M 470.4-1, Safeguards and Security Program Planning and Management.	Familiarity Level
1146-28d-07	Discuss the basic requirements of material control and accountability per DOE M 470.4-6, Nuclear Material Control and Accountability.	Familiarity Level
1146-28e-07	Discuss the responsibilities of field elements and contractor employees in identifying classified information as defined in DOE M 470.4-4, Information Security.	Familiarity Level

Course #	Competency Description	Proficiency Level
ISC-121DB Classified Matter Protection and Control		
1171-03h	Describe the methods for protection and control of classified matter.	Familiarity Level
1171-07c	Assess the contractor's program for protecting and controlling classified matter.	Working Level
1171-25f	Discuss the requirements for safeguarding National Security Information as described in Executive Order 12958, "National Security Information."	Familiarity Level
1171-26a	Discuss classification levels and categories and the degree of control required for each.	Expert Level
1171-26b	Describe the appropriate clearance level for access to each classification level.	Expert Level
1171-26c	Describe the proper storage of Top Secret matter not under personal control.	Expert Level
1171-26d	Describe the protection requirements for Top Secret matter in storage.	Expert Level
1171-26e	Describe the difference between the storage of Top Secret and Secret matter.	Expert Level
1171-26f	Describe the differences between the storage of Secret and Confidential matter.	Expert Level
1171-26i	Describe the procedures for receiving and transmitting classified matter.	Familiarity Level
1171-26j	Describe the procedures for packaging classified matter for transmission outside of the facility.	Familiarity Level
1171-26k	Discuss the procedures for transmitting classified matter outside of the security area.	Familiarity Level
1171-26l	Describe the different ways of transmitting classified matter.	Familiarity Level
1171-26m	Discuss the guidelines used for the reproduction of classified documents.	Familiarity Level
1171-26n	Describe the proper way to dispose of classified matter.	Familiarity Level
1171-26o	Describe the accountability records that must be maintained for accountable classified matter.	Familiarity Level
1171-26p	Describe the proper way to mark a classified document.	Familiarity Level
1171-26q	Describe the procedures for handling classified matter through the process of a contract termination or facility closeout.	Familiarity Level
1171-26r	Describe the process used to report, assign, and resolve the loss of classified matter.	Familiarity Level
1171-29d	Describe the classification levels, and categories, use of the term unclassified, and mosaic compilation.	Familiarity Level
1171-29g	Describe the classification/security markings placed on a classified document.	Familiarity Level
1171-29h	Discuss the authority and procedure to upgrade the classification of information and documents.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-29k	Discuss the classification review of newly generated documents.	Familiarity Level
1171-29l	Discuss the declassification and downgrading of classified information and documents.	Familiarity Level
1171-43a	Discuss classification levels and the degree of control required for each of the above directives.	Familiarity Level
1171-43b	Describe the appropriate clearance level for access to each classification level.	Familiarity Level
1171-44e	Discuss the facility's security organization program guidelines.	Familiarity Level
1171-44f	Describe the process of dealing with classified matter that cannot be accounted for.	Familiarity Level
1171-44g	Describe the process of dealing with the compromise of classified matter.	Familiarity Level
1171-45c	Define security.	Working Level

ISC-141 Operations Security (OPSEC) Overview

1171-28a	Differentiate between Critical Program Information, formerly known as Critical and Sensitive Information Lists and Indicators, formerly known as Essential Elements of Friendly Information.	Familiarity Level
1171-28b	Discuss the basic principles of the Operations Security process: + Identify critical information + Analyze threat + Assess vulnerabilities + Perform risk analysis + Implement countermeasures	Familiarity Level
1171-28c	Discuss the basic principles of the selection of countermeasures.	Familiarity Level
1171-28d	Describe the methodology used to develop a site-specific threat statement.	Familiarity Level
1171-28e	Describe the purpose and outcomes of a vulnerability assessment.	Familiarity Level
1171-39b	Discuss the responsibilities of the OPSEC Manager.	Familiarity Level
1171-39c	Discuss the activities, composition, and authorities of an OPSEC Working Group.	Familiarity Level

ISC-141D Operations Security (OPSEC) Overview

1171-28a	Differentiate between Critical Program Information, formerly known as Critical and Sensitive Information Lists and Indicators, formerly known as Essential Elements of Friendly Information.	Familiarity Level
1171-28b	Discuss the basic principles of the Operations Security process: + Identify critical information + Analyze threat + Assess vulnerabilities + Perform risk analysis + Implement countermeasures	Familiarity Level
1171-28c	Discuss the basic principles of the selection of countermeasures.	Familiarity Level
1171-28d	Describe the methodology used to develop a site-specific threat statement.	Familiarity Level
1171-28e	Describe the purpose and outcomes of a vulnerability assessment.	Familiarity Level
1171-39a	Describe the Department's Operations Security (OPSEC) program structure.	Familiarity Level
1171-39b	Discuss the responsibilities of the OPSEC Manager.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-39c	Discuss the activities, composition, and authorities of an OPSEC Working Group.	Familiarity Level
ISC-141DE Operations Security (OPSEC) Overview		
1171-28a	Differentiate between Critical Program Information, formerly known as Critical and Sensitive Information Lists and Indicators, formerly known as Essential Elements of Friendly Information.	Familiarity Level
1171-28b	Discuss the basic principles of the Operations Security process: + Identify critical information + Analyze threat + Assess vulnerabilities + Perform risk analysis + Implement countermeasures	Familiarity Level
1171-28c	Discuss the basic principles of the selection of countermeasures.	Familiarity Level
1171-28d	Describe the methodology used to develop a site-specific threat statement.	Familiarity Level
1171-28e	Describe the purpose and outcomes of a vulnerability assessment.	Familiarity Level
1171-39a	Describe the Department's Operations Security (OPSEC) program structure.	Familiarity Level
1171-39b	Discuss the responsibilities of the OPSEC Manager.	Familiarity Level
1171-39c	Discuss the activities, composition, and authorities of an OPSEC Working Group.	Familiarity Level
ISC-141DW Operations Security (OPSEC) Overview		
1171-28a	Differentiate between Critical Program Information, formerly known as Critical and Sensitive Information Lists and Indicators, formerly known as Essential Elements of Friendly Information.	Familiarity Level
1171-28b	Discuss the basic principles of the Operations Security process: + Identify critical information + Analyze threat + Assess vulnerabilities + Perform risk analysis + Implement countermeasures	Familiarity Level
1171-28c	Discuss the basic principles of the selection of countermeasures.	Familiarity Level
1171-28d	Describe the methodology used to develop a site-specific threat statement.	Familiarity Level
1171-28e	Describe the purpose and outcomes of a vulnerability assessment.	Familiarity Level
1171-39a	Describe the Department's Operations Security (OPSEC) program structure.	Familiarity Level
1171-39b	Discuss the responsibilities of the OPSEC Manager.	Familiarity Level
1171-39c	Discuss the activities, composition, and authorities of an OPSEC Working Group.	Familiarity Level
ISC-145 Operations Security Executive Seminar		
1171-00a	S&S Courses in Analysis	Familiarity Level
ISC-201 Information Security		
1171-26a	Discuss classification levels and categories and the degree of control required for each.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-26b	Describe the appropriate clearance level for access to each classification level.	Familiarity Level
1171-27	Safeguards and security personnel acting in information security shall demonstrate a familiarity level knowledge of the program described in DOE O 471.2A, Information Security Program.	Familiarity Level
1171-27a	Describe the basic elements of a technical surveillance countermeasures program.	Familiarity Level
ISC-201DV Information Security		
1171-25a	Discuss the purpose and scope of DOE Order 5639.8A, Security of Foreign Intelligence Information and Sensitive Compartmented Information Facilities.	Familiarity Level
1171-25b	Describe the interrelationship of the following: + Foreign Intelligence Information + Sensitive Compartmented Information + Other information security programs	Familiarity Level
1171-44a	Discuss the purpose and policy statements associated with the DOE's information security program.	Familiarity Level
1171-44b	Describe the major elements of the information security program.	Familiarity Level
1171-44c	Discuss the duties and responsibilities of the following positions as they pertain to the information security program: + Heads of departmental elements + Heads of field organization + Information security program operations managers Discuss the duties and responsibilities of the following positions as they pertain to the information security program: + Procurement request originators + Contracting officers	Familiarity Level
1171-44d	Describe the facility's chain of responsibility for information security.	Familiarity Level
1171-45a	Discuss the policy set forth in this order.	Familiarity Level
1171-45b	Describe the purpose of safeguards and discuss the types of activities used to accomplish these purposes.	Familiarity Level
1171-45c	Define security.	Working Level
1171-45d	Identify the key program elements of the safeguards and security program and describe the authorities and responsibilities of each.	Familiarity Level
ISC-202DV Legal Aspects of Inquiries		
1171-00a	S&S Courses in Analysis	Familiarity Level
ISC-221 Classified Matter Protection and Control I		
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03f	Discuss the recapture/recovery or pursuit strategy should containment fail.	Working Level
1171-03g	Discuss the programs designed to mitigate radiological / toxicological sabotage.	Working Level

Course #	Competency Description	Proficiency Level
1171-03h	Describe the methods for protection and control of classified matter.	Working Level
1171-07c	Assess the contractor's program for protecting and controlling classified matter.	Working Level
1171-25f	Discuss the requirements for safeguarding National Security Information as described in Executive Order 12958, "National Security Information."	Expert Level
1171-25g	Describe the purpose, goals, and objectives of the Information Security Oversight office Directive No. 1 with regard to National Security Information.	Expert Level
1171-26a	Discuss classification levels and categories and the degree of control required for each.	Expert Level
1171-26b	Describe the appropriate clearance level for access to each classification level.	Expert Level
1171-26c	Describe the proper storage of Top Secret matter not under personal control.	Expert Level
1171-26d	Describe the protection requirements for Top Secret matter in storage.	Expert Level
1171-26e	Describe the difference between the storage of Top Secret and Secret matter.	Expert Level
1171-26f	Describe the differences between the storage of Secret and Confidential matter.	Working Level
1171-26g	Describe the responsibilities in the event that a repository or location containing classified matter is found unattended.	Familiarity Level
1171-26h	Describe responsibilities in response to an intrusion detection alarm on a repository or location containing classified matter.	Familiarity Level
1171-26i	Describe the procedures for receiving and transmitting classified matter.	Expert Level
1171-26j	Describe the procedures for packaging classified matter for transmission outside of the facility.	Working Level
1171-26k	Discuss the procedures for transmitting classified matter outside of the security area.	Working Level
1171-26l	Describe the different ways of transmitting classified matter.	Expert Level
1171-26m	Discuss the guidelines used for the reproduction of classified documents.	Expert Level
1171-26n	Describe the proper way to dispose of classified matter.	Working Level
1171-26o	Describe the accountability records that must be maintained for accountable classified matter.	Expert Level
1171-26p	Describe the proper way to mark a classified document.	Expert Level
1171-26q	Describe the procedures for handling classified matter through the process of a contract termination or facility closeout.	Familiarity Level
1171-26r	Describe the process used to report, assign, and resolve the loss of classified matter.	Working Level

Course #	Competency Description	Proficiency Level
1171-29a	Discuss the responsibilities and authorities of the heads of field elements, field element and contractor classification officers, responsible reviewers, and field element and contractor employees.	Working Level
1171-29d	Describe the classification levels, and categories, use of the term unclassified, and mosaic compilation.	Expert Level
1171-43a	Discuss classification levels and the degree of control required for each of the above directives.	Expert Level
1171-43b	Describe the appropriate clearance level for access to each classification level.	Expert Level
1171-44f	Describe the process of dealing with classified matter that cannot be accounted for.	Familiarity Level
1171-44g	Describe the process of dealing with the compromise of classified matter.	Familiarity Level
1171-45b	Describe the purpose of safeguards and discuss the types of activities used to accomplish these purposes.	Familiarity Level
1171-45c	Define security.	Working Level
1171-45g	Discuss the purpose of alternative means and deviations including the following terms: + Variance + Waiver + Exception	Familiarity Level
ISC-222 Special Program Security Officer (SPSO)		
1171-25d	Explain how Director of Central Intelligence Directives are utilized by Field elements.	Working Level
1171-45c	Define security.	Working Level
ISC-234 Technical Surveillance Countermeasures		
1171-27	Safeguards and security personnel acting in information security shall demonstrate a familiarity level knowledge of the program described in DOE O 471.2A, Information Security Program.	Working Level
1171-27a	Describe the basic elements of a technical surveillance countermeasures program.	Working Level
ISC-241 Operations Security (OPSEC)		
1171-28a	Differentiate between Critical Program Information, formerly known as Critical and Sensitive Information Lists and Indicators, formerly known as Essential Elements of Friendly Information.	Familiarity Level
1171-28b	Discuss the basic principles of the Operations Security process: + Identify critical information + Analyze threat + Assess vulnerabilities + Perform risk analysis + Implement countermeasures	Familiarity Level
1171-28c	Discuss the basic principles of the selection of countermeasures.	Familiarity Level
1171-28d	Describe the methodology used to develop a site-specific threat statement.	Familiarity Level
1171-28e	Describe the purpose and outcomes of a vulnerability assessment.	Familiarity Level
1171-39a	Describe the Department's Operations Security (OPSEC) program structure.	Working Level

Course #	Competency Description	Proficiency Level
1171-39b	Discuss the responsibilities of the OPSEC Manager.	Working Level
1171-39c	Discuss the activities, composition, and authorities of an OPSEC Working Group.	Working Level
ISC-301 Conduct of Inquiries		
1171-26g	Describe the responsibilities in the event that a repository or location containing classified matter is found unattended.	Expert Level
1171-26h	Describe responsibilities in response to an intrusion detection alarm on a repository or location containing classified matter.	Working Level
1171-26r	Describe the process used to report, assign, and resolve the loss of classified matter.	Expert Level
1171-32c	Given a hypothetical security infraction, simulate the process of reporting and disposing of the infraction.	Expert Level
1171-44f	Describe the process of dealing with classified matter that cannot be accounted for.	Working Level
1171-44g	Describe the process of dealing with the compromise of classified matter.	Expert Level
1171-44h	Describe the process of making a damage assessment.	Familiarity Level
1171-44i	Describe the process of determining, assigning, and reporting a security infraction of classified information.	Expert Level
1171-45c	Define security.	Working Level
ISC-321 Classified Matter Protection and Control II - Program Management		
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03f	Discuss the recapture/recovery or pursuit strategy should containment fail.	Working Level
1171-03g	Discuss the programs designed to mitigate radiological / toxicological sabotage.	Working Level
1171-03h	Describe the methods for protection and control of classified matter.	Working Level
1171-07c	Assess the contractor's program for protecting and controlling classified matter.	Working Level
1171-25f	Discuss the requirements for safeguarding National Security Information as described in Executive Order 12958, "National Security Information."	Expert Level
1171-26g	Describe the responsibilities in the event that a repository or location containing classified matter is found unattended.	Working Level
1171-26h	Describe responsibilities in response to an intrusion detection alarm on a repository or location containing classified matter.	Working Level
1171-26r	Describe the process used to report, assign, and resolve the loss of classified matter.	Working Level

Course #	Competency Description	Proficiency Level
1171-29a	Discuss the responsibilities and authorities of the heads of field elements, field element and contractor classification officers, responsible reviewers, and field element and contractor employees.	Working Level
1171-31a	Assess the contractor's procedures for document and material control.	Working Level
1171-31b	Assess the contractor's self-inspection program for information security.	Working Level
1171-32a	Assess the contractor's practices during all phases of the control and use of Secret and Confidential matter.	Working Level
1171-32b	Assess the contractor's practices during all phases of the control and use of Secret and Confidential matter.	Working Level
1171-32c	Given a hypothetical security infraction, simulate the process of reporting and disposing of the infraction.	Working Level
1171-44f	Describe the process of dealing with classified matter that cannot be accounted for.	Working Level
1171-44g	Describe the process of dealing with the compromise of classified matter.	Working Level
1171-44i	Describe the process of determining, assigning, and reporting a security infraction of classified information.	Working Level
1171-45c	Define security.	Working Level
1171-45f	Discuss the purpose of independent assessments of safeguards and security programs.	Working Level
1171-45g	Discuss the purpose of alternative means and deviations including the following terms: + Variance + Waiver + Exception	Familiarity Level

LDI-400 Leadership Development Institute

ECQ1-Creativity	Creativity and Innovation	Familiarity Level
ECQ1-External-Awareness	External Awareness	Familiarity Level
ECQ1-Flexibility	Flexibility	Familiarity Level
ECQ1-Resilience	Resilience	Familiarity Level
ECQ1-Strategic-Thinking	Strategic Thinking	Familiarity Level
ECQ1-Vision	Vision	Familiarity Level
ECQ2-Conflict-Management	Conflict Management	Familiarity Level
ECQ2-Developing-Others	Developing Others	Familiarity Level
ECQ2-Leveraging-Diversity	Leveraging Diversity	Familiarity Level
ECQ2-Team-Building	Team Building	Familiarity Level
ECQ3-Accountability	Accountability	Familiarity Level
ECQ3-Customer-Service	Customer Service	Familiarity Level
ECQ3-Decisiveness	Decisiveness	Familiarity Level
ECQ3-Entrepreneurship	Entrepreneurship	Familiarity Level

Course #	Competency Description	Proficiency Level
ECQ3-Problem-Solving	Problem Solving	Familiarity Level
ECQ3-Technical-Credibility	Technical Credibility	Familiarity Level
ECQ4-Financial-Management	Financial Management	Familiarity Level
ECQ4-Human-Capital	Human Capital Management	Familiarity Level
ECQ4-Technology-Management	Technology Management	Familiarity Level
ECQ5-Influencing-Negotiating	Influencing and Negotiating	Familiarity Level
ECQ5-Partnering	Partnering	Familiarity Level
ECQ5-Political-Savvy	Political Savvy	Familiarity Level
LFR-102 Armorer Certification Course		
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Working Level
LFR-102R Armorer Certification Lessons 1-2 (Required Pre-Course Content)		
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Familiarity Level
LFR-102RC Armorer Recertification		
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Familiarity Level
LFR-103 Advanced Armorer Certification		
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Working Level
LFR-104 Armorer Recertification		
1171-00a	S&S Courses in Analysis	Familiarity Level
LFR-105 Armorer Certification Specialty Course		
1171-00a	S&S Courses in Analysis	Familiarity Level
LFR-201 Live-Fire Range Operations		
1171-00a	S&S Courses in Analysis	Familiarity Level
LFR-301 Performance Testing Controller/Evaluator		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-101D Intro to Nuclear Mat'ls Control & Accountability		
1171-02a	Describe the levels and associated responsibilities of protective force personnel with the DOE.	Familiarity Level
1171-02b	Describe the role of a special response team.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Familiarity Level
1171-02d	Describe typical examples of Federal or state authority granted to Protective Force Personnel.	Familiarity Level
1171-14a	Using a list of nuclear materials, identify the classification (special nuclearmaterial, source, or other) of the material.	Familiarity Level
1171-14b	Describe the categories of nuclear materials within the DOE.	Familiarity Level
1171-14c	Describe the attractiveness levels of nuclear materials within the DOE.	Familiarity Level
1171-16a	Describe the major containment areas required for nuclear materials within the Department.	Familiarity Level
1171-16b	Discuss the function of each of the following nuclear material control programs: + Access Control + Surveillance + Detection/assessment	Familiarity Level
1171-17a	Using the site material control and accountability plan, discuss the following requirements: + Measurements and measurement control + Planning and management + Threat considerations + Performance criteria + Accounting system + Physical inventories + Control limits+ Loss detection elements + Nuclear material alarms + Nuclear material access control + Containment + Surveillance	Familiarity Level
1171-17b	Discuss the concept of defense-in-depth as it applies to material control and accountability.	Familiarity Level
1171-17c	Discuss the material control and accountability aspects of the site and facility emergency plans.	Familiarity Level
1171-17d	Explain the specific performance requirements for material control and accountability elements.	Familiarity Level
1171-17e	Explain how nuclear materials are categorized using material type, attractiveness levels, and material quantities.	Familiarity Level
1171-17g	Discuss how vulnerability assessments, performance testing, and performance requirements serve as loss detection elements.	Familiarity Level
1171-17h	Discuss the occurrence investigation and reporting requirements associated with material control and accountability.	Familiarity Level
1171-17i	Discuss the administrative controls designed to prevent and detect material losses or diversions including internal reviews and assessment programs.	Familiarity Level
1171-33a	Define the terms safeguards and security as they apply to the DOE. Provide examples of each.	Familiarity Level
1171-33b	Describe the major safeguards and security objectives within the Department.	Familiarity Level
1171-33c	Describe the major elements of the DOE's Safeguards and Security program.	Familiarity Level
1171-33d	Describe the objective of Integrated Safeguards and Security Management (ISSM).	Familiarity Level
1171-33e	Describe the levels of access authorization used within the DOE.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-34a	Discuss the following terms: + Abrupt theft + Protracted theft + Diversion + Radiological sabotage + Toxicological sabotage + Industrial sabotage + Espionage	Familiarity Level
1171-34b	Discuss the protection strategies of denial and containment.	Familiarity Level
1171-34c	Discuss the basic adversary types recognized as a DOE threat.	Familiarity Level
1171-41a	Discuss the basic requirements of material control and accountability.	Familiarity Level
1171-41b	Describe in general how the material control and accountability materials accounting systems provides a complete audit trail of all nuclear material from receipt through disposition.	Familiarity Level
1171-41c	Describe the general requirements of the material control and accountability physical inventory program for nuclear materials.	Familiarity Level
1171-41d	Describe the general requirements and controls of the material control and accountability nuclear material transfer programs.	Familiarity Level
1171-41e	Discuss in general the four functional performance areas of nuclear material control.	Familiarity Level
MCA-101DC Introduction to Nuclear Materials Control and Accountability		
1171-02a	Describe the levels and associated responsibilities of protective force personnel with the DOE.	Familiarity Level
1171-02b	Describe the role of a special response team.	Familiarity Level
1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Familiarity Level
1171-02d	Describe typical examples of Federal or state authority granted to Protective Force Personnel.	Familiarity Level
1171-14a	Using a list of nuclear materials, identify the classification (special nuclearmaterial, source, or other) of the material.	Familiarity Level
1171-14b	Describe the categories of nuclear materials within the DOE.	Familiarity Level
1171-14c	Describe the attractiveness levels of nuclear materials within the DOE.	Familiarity Level
1171-16a	Describe the major containment areas required for nuclear materials within the Department.	Familiarity Level
1171-16b	Discuss the function of each of the following nuclear material control programs: + Access Control + Surveillance + Detection/assessment	Familiarity Level
1171-17a	Using the site material control and accountability plan, discuss the following requirements: + Measurements and measurement control + Planning and management + Threat considerations + Performance criteria + Accounting system + Physical inventories + Control limits+ Loss detection elements + Nuclear material alarms + Nuclear material access control + Containment + Surveillance	Familiarity Level
1171-17b	Discuss the concept of defense-in-depth as it applies to material control and accountability.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-17c	Discuss the material control and accountability aspects of the site and facility emergency plans.	Familiarity Level
1171-17d	Explain the specific performance requirements for material control and accountability elements.	Familiarity Level
1171-17e	Explain how nuclear materials are categorized using material type, attractiveness levels, and material quantities.	Familiarity Level
1171-17f	Discuss how materials categorization relates to the graded safeguards principle.	Familiarity Level
1171-17g	Discuss how vulnerability assessments, performance testing, and performance requirements serve as loss detection elements.	Familiarity Level
1171-17h	Discuss the occurrence investigation and reporting requirements associated with material control and accountability.	Familiarity Level
1171-17i	Discuss the administrative controls designed to prevent and detect material losses or diversions including internal reviews and assessment programs.	Familiarity Level
1171-33a	Define the terms safeguards and security as they apply to the DOE. Provide examples of each.	Familiarity Level
1171-33b	Describe the major safeguards and security objectives within the Department.	Familiarity Level
1171-33c	Describe the major elements of the DOE's Safeguards and Security program.	Familiarity Level
1171-33d	Describe the objective of Integrated Safeguards and Security Management (ISSM).	Familiarity Level
1171-33e	Describe the levels of access authorization used within the DOE.	Familiarity Level
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-34a	Discuss the following terms: + Abrupt theft + Protracted theft + Diversion + Radiological sabotage + Toxicological sabotage + Industrial sabotage + Espionage	Familiarity Level
1171-34b	Discuss the protection strategies of denial and containment.	Familiarity Level
1171-34c	Discuss the basic adversary types recognized as a DOE threat.	Familiarity Level
1171-41a	Discuss the basic requirements of material control and accountability.	Familiarity Level
1171-41b	Describe in general how the material control and accountability materials accounting systems provides a complete audit trail of all nuclear material from receipt through disposition.	Familiarity Level
1171-41c	Describe the general requirements of the material control and accountability physical inventory program for nuclear materials.	Familiarity Level
1171-41d	Describe the general requirements and controls of the material control and accountability nuclear material transfer programs.	Familiarity Level
1171-41e	Discuss in general the four functional performance areas of nuclear material control.	Familiarity Level

Course #	Competency Description	Proficiency Level
MCA-101RC Introduction to Nuclear Materials Control and Accountability - Russian Version		
1171-02a	Describe the levels and associated responsibilities of protective force personnel with the DOE.	Familiarity Level
1171-02b	Describe the role of a special response team.	Familiarity Level
1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Familiarity Level
1171-02d	Describe typical examples of Federal or state authority granted to Protective Force Personnel.	Familiarity Level
1171-14a	Using a list of nuclear materials, identify the classification (special nuclearmaterial, source, or other) of the material.	Familiarity Level
1171-14b	Describe the categories of nuclear materials within the DOE.	Familiarity Level
1171-14c	Describe the attractiveness levels of nuclear materials within the DOE.	Familiarity Level
1171-16a	Describe the major containment areas required for nuclear materials within the Department.	Familiarity Level
1171-16b	Discuss the function of each of the following nuclear material control programs: + Access Control + Surveillance + Detection/assessment	Familiarity Level
1171-17c	Discuss the material control and accountability aspects of the site and facility emergency plans.	Familiarity Level
1171-17d	Explain the specific performance requirements for material control and accountability elements.	Familiarity Level
1171-17e	Explain how nuclear materials are categorized using material type, attractiveness levels, and material quantities.	Familiarity Level
1171-17f	Discuss how materials categorization relates to the graded safeguards principle.	Familiarity Level
1171-17g	Discuss how vulnerability assessments, performance testing, and performance requirements serve as loss detection elements.	Familiarity Level
1171-17h	Discuss the occurrence investigation and reporting requirements associated with material control and accountability.	Familiarity Level
1171-17i	Discuss the administrative controls designed to prevent and detect material losses or diversions including internal reviews and assessment programs.	Familiarity Level
1171-33a	Define the terms safeguards and security as they apply to the DOE. Provide examples of each.	Familiarity Level
1171-33b	Describe the major safeguards and security objectives within the Department.	Familiarity Level
1171-33c	Describe the major elements of the DOE's Safeguards and Security program.	Familiarity Level
1171-33d	Describe the objective of Integrated Safeguards and Security Management (ISSM).	Familiarity Level
1171-33e	Describe the levels of access authorization used within the DOE.	Familiarity Level
1171-33f	Describe the graded approach policy.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-34a	Discuss the following terms: + Abrupt theft + Protracted theft + Diversion + Radiological sabotage + Toxicological sabotage + Industrial sabotage + Espionage	Familiarity Level
1171-34b	Discuss the protection strategies of denial and containment.	Familiarity Level
1171-34c	Discuss the basic adversary types recognized as a DOE threat.	Familiarity Level
1171-41a	Discuss the basic requirements of material control and accountability.	Familiarity Level
1171-41b	Describe in general how the material control and accountability materials accounting systems provides a complete audit trail of all nuclear material from receipt through disposition.	Familiarity Level
1171-41c	Describe the general requirements of the material control and accountability physical inventory program for nuclear materials.	Familiarity Level
1171-41d	Describe the general requirements and controls of the material control and accountability nuclear material transfer programs.	Familiarity Level
1171-41e	Discuss in general the four functional performance areas of nuclear material control.	Familiarity Level
MCA-103DC Transaction Data System		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-104DB Introduction to Measurement Programs (Correspondence Course)		
1171-18g	Discuss the purpose and use of inventory verification/confirmation measurements.	Working Level
1171-18h	Discuss the data quality assurance elements of the requirements for measurements and measurement control and how they are monitored to ensure continuing control of measurement errors.	Working Level
1171-18i	Discuss the measurement control programs used at a facility.	Working Level
1171-18m	Discuss the sampling methods used to determine physical inventory values.	Working Level
1171-18n	Describe the weighing techniques used to determine physical inventory values.	Working Level
1171-18o	Describe the analytical methods used to determine physical inventory values.	Working Level
MCA-110 Basics of Nuclear Materials Accountability		
1171-15a	Discuss the purpose of the following material control and accountability measurements: + Accountability + Verification + Confirmatory	Working Level
1171-15b	Describe the three general types of measurement methods used to measure nuclear material.	Working Level
1171-15c	Discuss the following statistical terms: + Random sample + Standard deviation + Measurement bias + Random error	Working Level
1171-15d	Describe the key elements of a nuclear material accounting system.	Working Level

Course #	Competency Description	Proficiency Level
1171-15e	Describe the purpose for conducting the following physical inventories: + Periodic physical inventories + Special inventories	Working Level
1171-15f	Discuss the following physical inventory terms: + Inventory difference + Shipper/receiver difference	Working Level
MCA-111 Materials Accounting for Nuclear Safeguards		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-112 Nuclear Materials Management and Safeguards Systems I (NMMSS I)		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-114 Local Area Network Accounting System (LANMAS) Administrators Course		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-120 Basics of Nuclear Materials Control		
1171-14b	Describe the categories of nuclear materials within the DOE.	Working Level
1171-14c	Describe the attractiveness levels of nuclear materials within the DOE.	Working Level
1171-16a	Describe the major containment areas required for nuclear materials within the Department.	Working Level
1171-16b	Discuss the function of each of the following nuclear material control programs: + Access Control + Surveillance + Detection/assessment	Working Level
1171-16c	Discuss the key elements of the above nuclear material control programs.	Working Level
1171-17b	Discuss the concept of defense-in-depth as it applies to material control and accountability.	Working Level
1171-17d	Explain the specific performance requirements for material control and accountability elements.	Working Level
1171-17e	Explain how nuclear materials are categorized using material type, attractiveness levels, and material quantities.	Working Level
1171-17f	Discuss how materials categorization relates to the graded safeguards principle.	Working Level
1171-17i	Discuss the administrative controls designed to prevent and detect material losses or diversions including internal reviews and assessment programs.	Working Level
1171-19a	Discuss the requirements for controlling access to nuclear materials, data, and property.	Working Level
1171-19b	Discuss the requirements for each of the following containment boundaries including category considerations: protected areas, materials access areas; materials balance areas; storage repositories; and processing areas.	Working Level
1171-19c	Discuss the graded requirements for the materials surveillance program.	Working Level
1171-19d	Discuss how each of the detection/assessment elements listed in the order addresses the potential for theft or diversion of nuclear material.	Working Level

Course #	Competency Description	Proficiency Level
1171-20c	Describe the types of material control and accountability emergency procedures required.	Familiarity Level
1171-20d	Assess the material control and accountability emergency procedures to ensure they are in compliance with DOE O 474.1, Control and Accountability of Nuclear Materials and DOE M 474.1-1A, Manual for Control and Accountability of Nuclear Materials.	Familiarity Level
1171-20e	Assess the controls that limit access to the accounting system and nuclear materials accounting data.	Familiarity Level
1171-22b	Assess whether the contractor's performance testing program for material control and accountability meets the requirements of DOE O 470.1, Safeguards and Security Program.	Demonstrate the ability
1171-22d	Assess the facility's administrative controls that ensure the integrity and quality of systems and procedures for material control and accountability.	Demonstrate the ability
1171-22h	Assess the contractor's graded surveillance program for monitoring nuclear materials, detecting unauthorized activities or anomalous conditions, and for reporting material and facility status.	Demonstrate the ability
1171-22i	Assess the contractor's capability to detect and assess the unauthorized removal of nuclear materials.	Demonstrate the ability

MCA-130 Statistical Concepts in Material Control and Accountability

1171-15a	Discuss the purpose of the following material control and accountability measurements: + Accountability + Verification + Confirmatory	Working Level
1171-15b	Describe the three general types of measurement methods used to measure nuclear material.	Working Level
1171-15c	Discuss the following statistical terms: + Random sample + Standard deviation + Measurement bias + Random error	Working Level
1171-15d	Describe the key elements of a nuclear material accounting system.	Working Level
1171-15e	Describe the purpose for conducting the following physical inventories: + Periodic physical inventories + Special inventories	Working Level
1171-15f	Discuss the following physical inventory terms: + Inventory difference + Shipper/receiver difference	Working Level
1171-20a	Describe the content, review and approval requirements for facility material control and accountability procedures.	Working Level
1171-20b	Assess the material control and accountability procedures for consistency with the approved material control and accountability plan.	Working Level
1171-20c	Describe the types of material control and accountability emergency procedures required.	Working Level
1171-20f	Describe the checks and balances required in the nuclear material accounting system.	Working Level
1171-20g	Assess the contractor's assessment program for integrity and quality of the material control and accountability system.	Working Level

Course #	Competency Description	Proficiency Level
MCA-132 Sampling Plans for Material Control and Accountability		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-150 Material Control and Accountability Survey Procedures		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-153 Introduction to Performance Testing for Material Control and Accountability		
1171-05a	Describe the different security areas.	Working Level
1171-05b	Discuss controls to detect, assess, deter, and prevent unauthorized access to Security Areas.	Working Level
1171-05c	Describe when random entry/exit inspections are permitted and give reasons for those inspections.	Working Level
1171-05d	Describe the articles prohibited from Security Areas cited in 10 CFR part 860 Trespassing on Administration Property and Title 41 CFR Part 101 Federal Property Management Regulations.	Working Level
1171-05e	List the types of privately owned articles prohibited from a security area.	Working Level
1171-05f	Describe the level of protection given to a property protection area.	Working Level
1171-05g	Describe the level of protection, access requirements, and storage requirements for a limited area.	Working Level
1171-05h	Describe the level of protection, access requirements and storage requirements for an exclusion area.	Working Level
1171-05i	Describe the level of protection for a Protected Areas.	Working Level
1171-05j	Discuss function and performance of personnel entry/exit and vehicle entry inspections for those entering a protected area.	Working Level
1171-05k	Describe the response to an intrusion alarm within a protected area.	Working Level
1171-05l	Describe the level of protection and access requirements for a Vital Area.	Working Level
1171-05m	Describe the level of protection for a material access area.	Working Level
1171-05n	Discuss the entry/exit inspections required for a Material Access Area.	Working Level
1171-05o	Describe the response to an intrusion alarm within a material access area.	Working Level
1171-05p	Describe the level of protection for Sensitive Compartmented Information Facilities.	Working Level
1171-37a	Assess the facility's acceptance and validation test for safeguards and security that validate functional requirements and effectiveness of safeguards and security elements that have been implemented and are operating as part of a total system.	Working Level
1171-37b	Assess the contractor's ability to identify and test critical system elements during acceptance and validation tests.	Working Level
1171-37c	Discuss the required frequency of performance testing.	Working Level
1171-37d	Describe the required sections of the safeguards and security acceptance and validation test program plan.	Working Level

Course #	Competency Description	Proficiency Level
1171-37e	Describe the required sections of the safeguards and security validation test plan.	Working Level
1171-37f	Discuss the required sections of the safeguards and security acceptance and validation test reports.	Working Level
1171-37g	Describe what determines unsatisfactory test results and how these are resolved.	Working Level
MCA-212 Nuclear Materials Management and Safeguards Systems II (NMMSS II)		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-214 Local Area Network Accounting System (LANMAS) Users Course		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-224 Local Area Nuclear Material Accountability Software (LANMAS) Advanced User's Training		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-230 Statistical Concepts in Safeguards		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-241 Nondestructive Assay (NDA) Techniques for Safeguards Practitioners		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-243 Nondestructive Assay (NDA) of Special Nuclear Materials Holdup		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-244 Plutonium Calorimetric Assay Training		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-246 Calorimeter Operator Training School		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-248 Waste and Residue Nondestructive Assay (NDA) Measurements		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-260 Physical Inventories for Material Control and Accountability		
1171-15a	Discuss the purpose of the following material control and accountability measurements: + Accountability + Verification + Confirmatory	Working Level
1171-15b	Describe the three general types of measurement methods used to measure nuclear material.	Working Level
1171-15c	Discuss the following statistical terms: + Random sample + Standard deviation + Measurement bias + Random error	Working Level

Course #	Competency Description	Proficiency Level
1171-15d	Describe the key elements of a nuclear material accounting system.	Working Level
1171-15e	Describe the purpose for conducting the following physical inventories: + Periodic physical inventories + Special inventories	Working Level
1171-15f	Discuss the following physical inventory terms: + Inventory difference + Shipper/receiver difference	Working Level
MCA-260 Physical Inventories for MC&A		
1171-15a	Discuss the purpose of the following material control and accountability measurements: + Accountability + Verification + Confirmatory	Working Level
1171-15b	Describe the three general types of measurement methods used to measure nuclear material.	Working Level
1171-15c	Discuss the following statistical terms: + Random sample + Standard deviation + Measurement bias + Random error	Working Level
1171-15d	Describe the key elements of a nuclear material accounting system.	Working Level
1171-15e	Describe the purpose for conducting the following physical inventories: + Periodic physical inventories + Special inventories	Working Level
1171-15f	Discuss the following physical inventory terms: + Inventory difference + Shipper/receiver difference	Working Level
MCA-342 Advanced Neutron Nondestructive Assay (NDA) Techniques		
1171-00a	S&S Courses in Analysis	Familiarity Level
MCA-343 Gamma-Ray Spectroscopy for Nuclear Materials Accounting		
1171-00a	S&S Courses in Analysis	Familiarity Level
MDI-300 Management Development Institute		
ECQ1-Flexibility	Flexibility	Familiarity Level
ECQ2-Conflict-Management	Conflict Management	Familiarity Level
ECQ2-Team-Building	Team Building	Familiarity Level
ECQ3-Accountability	Accountability	Familiarity Level
ECQ3-Decisiveness	Decisiveness	Familiarity Level
ECQ3-Problem-Solving	Problem Solving	Familiarity Level
ECQ3-Technical-Credibility	Technical Credibility	Familiarity Level
ECQ4-Financial-Management	Financial Management	Familiarity Level
ECQ5-Influencing-Negotiating	Influencing and Negotiating	Familiarity Level
MIT-111 Basic Instructor Training		
1171-00a	S&S Courses in Analysis	Familiarity Level

Course #	Competency Description	Proficiency Level
MIT-119DB Introduction to Job Analysis		
1171-00a	S&S Courses in Analysis	Familiarity Level
MIT-119DB Introduction to Job Analysis (Correspondence Course)		
1171-00a	S&S Courses in Analysis	Familiarity Level
MIT-120 Job Analysis		
1171-00a	S&S Courses in Analysis	Familiarity Level
MIT-200 Supervisor Development Program		
ECQ2-Conflict-Management	Conflict Management	Working Level
ECQ2-Developing-Others	Developing Others	Working Level
ECQ2-Team-Building	Team Building	Working Level
ECQ3-Accountability	Accountability	Working Level
ECQ3-Decisiveness	Decisiveness	Working Level
ECQ3-Problem-Solving	Problem Solving	Working Level
ECQ4-Technology-Management	Technology Management	Working Level
ECQ5-Influencing-Negotiating	Influencing and Negotiating	Working Level
ECQ5-Partnering	Partnering	Working Level
ECQ5-Political-Savvy	Political Savvy	Working Level
MIT-209DW Introduction to Instructional System Design		
1171-00a	S&S Courses in Analysis	Familiarity Level
MIT-210 Curriculum Development Training		
1171-00a	S&S Courses in Analysis	Familiarity Level
Operations Security -- An Overview (ISC-141DV)		
1171-28a	Differentiate between Critical Program Information, formerly known as Critical and Sensitive Information Lists and Indicators, formerly known as Essential Elements of Friendly Information.	Familiarity Level
1171-28b	Discuss the basic principles of the Operations Security process: + Identify critical information + Analyze threat + Assess vulnerabilities + Perform risk analysis + Implement countermeasures	Familiarity Level
1171-28c	Discuss the basic principles of the selection of countermeasures.	Familiarity Level
1171-28d	Describe the methodology used to develop a site-specific threat statement.	Familiarity Level
1171-28e	Describe the purpose and outcomes of a vulnerability assessment.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-39a	Describe the Department's Operations Security (OPSEC) program structure.	Familiarity Level
1171-39b	Discuss the responsibilities of the OPSEC Manager.	Familiarity Level
1171-39c	Discuss the activities, composition, and authorities of an OPSEC Working Group.	Familiarity Level
Operations Security Executive Seminar (ISC-145)		
1171-00a	S&S Courses in Analysis	Familiarity Level
PER-100DB Introduction to DOE Personnel Security (Correspondence Course)		
1171-12e	Describe when a "Data Report on Spouse" form must be filed.	Familiarity Level
1171-12f	Describe the requirements and processes of access authorization for foreign nationals, dual citizens, and naturalized U.S. citizens.	Familiarity Level
1171-12g	Discuss the extensions, transfers, terminations, and reinstatements of access authorizations.	Familiarity Level
1171-12h	Describe the reinvestigation program.	Familiarity Level
PER-100DE Introduction to DOE Personnel Security		
1171-12e	Describe when a "Data Report on Spouse" form must be filed.	Familiarity Level
1171-12f	Describe the requirements and processes of access authorization for foreign nationals, dual citizens, and naturalized U.S. citizens.	Familiarity Level
1171-12g	Discuss the extensions, transfers, terminations, and reinstatements of access authorizations.	Familiarity Level
1171-12h	Describe the reinvestigation program.	Familiarity Level
PER-101 Personnel Security Specialist Adjudication Training		
1171-09a	Discuss the following terms:? Derogatory information? Access authorization? Single scope background investigation? Suspension	Demonstrate the ability
1171-09b	Discuss the process for screening reports of investigation for initial Q and L access authorizations.	Demonstrate the ability
1171-09c	Explain the relevance in terms of risk assessment of the clearance criteria in 10 CFR 710, Subpart A, General Criteria and Procedures for Determining Eligibility for Access to Classified Matter or Special Nuclear Material.	Demonstrate the ability
1171-09d	Explain the purpose of the personnel security interview.	Demonstrate the ability
1171-12a	Describe the general requirements for determining level of access authorization and investigative requirements.	Working Level
1171-12b	Discuss the elements for processing personnel security cases.	Demonstrate the ability
1171-12c	Describe the processes used for screening and analysis of investigative results in personnel security cases and methods for determining access authorization eligibility.	Demonstrate the ability

Course #	Competency Description	Proficiency Level
1171-12e	Describe when a "Data Report on Spouse" form must be filed.	Familiarity Level
1171-13d	Assess DOE personnel security staff capability to effectively adjudicate information contained in reports of investigation, personnel security interviews, and Department sponsored mental evaluations.	Working Level
PER-200 Advanced Personnel Security Training		
1171-12f	Describe the requirements and processes of access authorization for foreign nationals, dual citizens, and naturalized U.S. citizens.	Familiarity Level
1171-13d	Assess DOE personnel security staff capability to effectively adjudicate information contained in reports of investigation, personnel security interviews, and Department sponsored mental evaluations.	Working Level
PER-201 Introduction to Interviewing Techniques Seminar		
1171-09d	Explain the purpose of the personnel security interview.	Expert Level
PER-300 Administrative Review Hearing Procedures		
1171-09a	Discuss the following terms:? Derogatory information? Access authorization? Single scope background investigation? Suspension	Working Level
1171-09c	Explain the relevance in terms of risk assessment of the clearance criteria in 10 CFR 710, Subpart A, General Criteria and Procedures for Determining Eligibility for Access to Classified Matter or Special Nuclear Material.	Demonstrate the ability
PER-310DE Personnel Security Annual Refresher Training--FY 2009		
1171-00a	S&S Courses in Analysis	Familiarity Level
PFT-106DE Firearms Safety		
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Working Level
PFT-106DW Firearms Safety		
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Working Level
PFT-112 Safety Officer Practical Training Program		
1171-00a	S&S Courses in Analysis	Familiarity Level
PFT-202 Survey of Protective Forces		
1171-02a	Describe the levels and associated responsibilities of protective force personnel with the DOE.	Familiarity Level
1171-02b	Describe the role of a special response team.	Working Level
1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Familiarity Level
1171-02d	Describe typical examples of Federal or state authority granted to Protective Force Personnel.	Working Level

Course #	Competency Description	Proficiency Level
1171-06a	Describe the requirements for an armed protective force.	Working Level
1171-06b	Discuss how responsibilities identified in a protective force job analysis related to proficiency in the skills and abilities necessary to perform job tasks.	Working Level
1171-06c	Discuss specific laws regarding property of the United States and provisions of the Atomic Energy Act, as described in 10 CFR 1047 Defense Programs; Limited Arrest Authority and Use of Force by Protective Force Officers, 1049 Limited Arrest Authority and Use of Force by Protective Force Officers of the Strategic Petroleum Reserve.	Familiarity Level
1171-06d	Discuss the Departmental policy on the use of deadly force and limited arrest authority as set forth in 10 CFR 1047 Defense Programs; Limited Arrest Authority and Use of Force by Protective Force Officers and 1049 Limited Arrest Authority and Use of Force by Protective Force Officers of the Strategic Petroleum Reserve.	Working Level
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Familiarity Level
1171-06f	Discuss firearms qualification requirements for all issued duty weapons.	Familiarity Level
1171-06g	Discuss application of the authorization to carry firearms and make arrests without a warrant while performing official duties.	Familiarity Level
1171-06h	Describe the situations in which fresh pursuit guidelines and site-specific guidelines for fresh pursuit of criminals are invoked.	Familiarity Level
1171-06i	Describe safety procedures in fresh pursuit.	Familiarity Level
1171-07c	Assess the contractor's program for protecting and controlling classified matter.	Working Level
1171-07g	Review for approval the contractor's protective force orders plans, and procedures.	Working Level
1171-08a	Assist in designing and evaluating a force-on-force performance test.	Working Level
1171-08b	Assist in designing and evaluating an emergency management performance test.	Familiarity Level
1171-08c	Assist in designing and evaluating a limited scope performance test of protective forces.	Working Level

PFT-215 Basic Security Police Officer Training

1171-00a	S&S Courses in Analysis	Familiarity Level
1171-01a	Describe the three primary functions of a physical protection system.	Familiarity Level
1171-01b	Describe the characteristics of an effective physical protection system.	Working Level
1171-01c	Describe the fundamental characteristics of ? Exterior intrusion sensors? Interior intrusion sensors	Familiarity Level
1171-01d	Using a list of exterior and interior sensors, describe the classification that should be assigned to each type of sensor.	Familiarity Level
1171-01e	Describe the types of exterior and interior sensors used within the Department.	Familiarity Level
1171-01f	Describe the components of a comprehensive entry control system.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-01g	Describe the types of entry control systems used within the Department.	Familiarity Level
1171-01h	Describe the purpose of access delay in a physical protection system.	Familiarity Level
1171-01i	Describe the type of access delay mechanisms used within the Department.	Familiarity Level
1171-01j	Discuss the following terms:? Probability of detection? Delay time	Familiarity Level
1171-01k	Demonstrate the modeling of a physical protection system using an adversary sequence diagram.	Familiarity Level
1171-02a	Describe the levels and associated responsibilities of protective force personnel with the DOE.	Familiarity Level
1171-02b	Describe the role of a special response team.	Working Level
1171-02c	Discuss the following terms:+ Interdiction+ Interruption+ Neutralization+ Recapture+ Denial	Working Level
1171-02d	Describe typical examples of Federal or state authority granted to Protective Force Personnel.	Familiarity Level
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Familiarity Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03f	Discuss the recapture/recovery or pursuit strategy should containment fail.	Working Level
1171-03g	Discuss the programs designed to mitigate radiological / toxicological sabotage.	Working Level
1171-04a	Describe access procedures to storage repositories.	Working Level
1171-04b	Describe procedures to prevent and detect unauthorized access to a storage repository.	Working Level
1171-04c	Describe the procedures for investigating and reporting abnormal conditions.	Working Level
1171-04g	Discuss the protection provided to vital equipment.	Working Level
1171-06a	Describe the requirements for an armed protective force.	Working Level
1171-06c	Discuss specific laws regarding property of the United States and provisions of the Atomic Energy Act, as described in 10 CFR 1047 Defense Programs; Limited Arrest Authority and Use of Force by Protective Force Officers, 1049 Limited Arrest Authority and Use of Force by Protective Force Officers of the Strategic Petroleum Reserve.	Working Level
1171-06d	Discuss the Departmental policy on the use of deadly force and limited arrest authority as set forth in 10 CFR 1047 Defense Programs; Limited Arrest Authority and Use of Force by Protective Force Officers and 1049 Limited Arrest Authority and Use of Force by Protective Force Officers of the Strategic Petroleum Reserve.	Working Level
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Working Level
1171-06f	Discuss firearms qualification requirements for all issued duty weapons.	Working Level

Course #	Competency Description	Proficiency Level
1171-06h	Describe the situations in which fresh pursuit guidelines and site-specific guidelines for fresh pursuit of criminals are invoked.	Working Level
1171-06i	Describe safety procedures in fresh pursuit.	Working Level
1171-06j	Describe the difference between a misdemeanor and a felony.	Working Level
1171-33a	Define the terms safeguards and security as they apply to the DOE. Provide examples of each.	Familiarity Level
1171-33b	Describe the major safeguards and security objectives within the Department.	Familiarity Level
1171-33c	Describe the major elements of the DOE's Safeguards and Security program.	Familiarity Level
1171-33d	Describe the objective of Integrated Safeguards and Security Management (ISSM).	Familiarity Level
1171-33e	Describe the levels of access authorization used within the DOE.	Familiarity Level
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-34a	Discuss the following terms: + Abrupt theft + Protracted theft + Diversion + Radiological sabotage + Toxicological sabotage + Industrial sabotage + Espionage	Familiarity Level
1171-34b	Discuss the protection strategies of denial and containment.	Working Level
1171-34c	Discuss the basic adversary types recognized as a DOE threat.	Familiarity Level
PFT-310 Security Police Officer III Certification		
1171-00a	S&S Courses in Analysis	Familiarity Level
1171-04d	Describe protective responsibilities when special nuclear material is out of the vault.	Working Level
1171-04e	Describe the protective responsibilities when special nuclear material is in transit.	Working Level
1171-04f	Describe escort responsibilities when special nuclear material is in transit.	Working Level
1171-04g	Discuss the protection provided to vital equipment.	Working Level
PFT-320 Precision Rifle/Forward Observer Team		
1171-06d	Discuss the Departmental policy on the use of deadly force and limited arrest authority as set forth in 10 CFR 1047 Defense Programs; Limited Arrest Authority and Use of Force by Protective Force Officers and 1049 Limited Arrest Authority and Use of Force by Protective Force Officers of the Strategic Petroleum Reserve.	Working Level
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Working Level
PFT-320A Fieldcraft		
1171-00a	S&S Courses in Analysis	Familiarity Level

Course #	Competency Description	Proficiency Level
PFT-321 Precision Rifle/Forward Observer Team Instructor Certificate		
1171-00a	S&S Courses in Analysis	Familiarity Level
PFT-330 Engagement Simulation Systems Instructor Certification		
1171-00a	S&S Courses in Analysis	Familiarity Level
PFT-370 Opposition Force		
1171-04e	Describe the protective responsibilities when special nuclear material is in transit.	Working Level
1171-08a	Assist in designing and evaluating a force-on-force performance test.	Working Level
1171-08b	Assist in designing and evaluating an emergency management performance test.	Working Level
1171-08c	Assist in designing and evaluating a limited scope performance test of protective forces.	Working Level
PFT-401 Firearms Instructor Certification		
1171-06c	Discuss specific laws regarding property of the United States and provisions of the Atomic Energy Act, as described in 10 CFR 1047 Defense Programs; Limited Arrest Authority and Use of Force by Protective Force Officers, 1049 Limited Arrest Authority and Use of Force by Protective Force Officers of the Strategic Petroleum Reserve.	Working Level
1171-06d	Discuss the Departmental policy on the use of deadly force and limited arrest authority as set forth in 10 CFR 1047 Defense Programs; Limited Arrest Authority and Use of Force by Protective Force Officers and 1049 Limited Arrest Authority and Use of Force by Protective Force Officers of the Strategic Petroleum Reserve.	Working Level
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Working Level
1171-06f	Discuss firearms qualification requirements for all issued duty weapons.	Working Level
PFT-402 Advanced Weapons Systems Instructor Certification		
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Working Level
PFT-403 Intermediate Force Instructor Certification		
1171-00a	S&S Courses in Analysis	Familiarity Level
PFT-404 Rappel Instructor Certification Program		
1171-00a	S&S Courses in Analysis	Familiarity Level
PFT-405 Basic Tactical Entry		
1171-07b	Assess the contractor's methods for protecting special nuclear material and vital equipment.	Demonstrate the ability
PFT-406 Basic Tactical Entry Instructor Certification		

Course #	Competency Description	Proficiency Level
1171-00a	S&S Courses in Analysis	Familiarity Level
PFT-407 Security Police Officer III Instructor Certification		
1171-00a	S&S Courses in Analysis	Familiarity Level
PFT-408 Ground Control Instructor Certification		
1171-00a	S&S Courses in Analysis	Familiarity Level
PFT-460 Tactical Leadership		
1171-04e	Describe the protective responsibilities when special nuclear material is in transit.	Working Level
1171-04f	Describe escort responsibilities when special nuclear material is in transit.	Working Level
PFT-501 Live Fire Shoot House Instructor Certification		
1171-00a	S&S Courses in Analysis	Familiarity Level
PHY-100DB Introduction to Physical Protection Systems (Correspondence Course)		
1171-01b	Describe the characteristics of an effective physical protection system.	Familiarity Level
1171-03a	Describe the five elements of protection and control planing+ Site-specific characteristics+ Threat+ Protection strategy+ Planning+ Graded Protection	Working Level
1171-03b	Describe how the design basis threat is used in safeguards and security program planning.	Working Level
1171-03c	Describe the method used to identify and characterize the range of potential adversary threats.	Working Level
1171-05a	Describe the different security areas.	Familiarity Level
1171-05b	Discuss controls to detect, assess, deter, and prevent unauthorized access to Security Areas.	Familiarity Level
PHY-120 Intermediate Physical Security Systems		
1171-01a	Describe the three primary functions of a physical protection system.	Working Level
1171-01b	Describe the characteristics of an effective physical protection system.	Working Level
1171-01c	Describe the fundamental characteristics of ? Exterior intrusion sensors? Interior intrusion sensors	Working Level
1171-01d	Using a list of exterior and interior sensors, describe the classification that should be assigned to each type of sensor.	Working Level
1171-01e	Describe the types of exterior and interior sensors used within the Department.	Working Level
1171-01f	Describe the components of a comprehensive entry control system.	Working Level
1171-01g	Describe the types of entry control systems used within the Department.	Working Level
1171-01h	Describe the purpose of access delay in a physical protection system.	Working Level

Course #	Competency Description	Proficiency Level
1171-01i	Describe the type of access delay mechanisms used within the Department.	Working Level
1171-01j	Discuss the following terms: Probability of detection? Delay time	Working Level
1171-03a	Describe the five elements of protection and control planing+ Site-specific characteristics+ Threat+ Protection strategy+ Planning+ Graded Protection	Working Level
1171-03b	Describe how the design basis threat is used in safeguards and security program planning.	Working Level
1171-03j	Discuss the graded approach in relation to the protection of safeguards and security interests.	Working Level
1171-03k	Discuss the requirements of the following protection elements:+ Intrusion detection and assessment systems+ Access control and entry/exit inspections+ Barriers and locks+ Secure storage+ Communications+ Acceptance and validation testing Maintenance+ Posting notices+ Security badges and credentials	Familiarity Level
1171-04b	Describe procedures to prevent and detect unauthorized access to a storage repository.	Working Level
1171-04g	Discuss the protection provided to vital equipment.	Working Level
1171-05a	Describe the different security areas.	Working Level
1171-05b	Discuss controls to detect, assess, deter, and prevent unauthorized access to Security Areas.	Working Level
1171-05c	Describe when random entry/exit inspections are permitted and give reasons for those inspections.	Working Level
1171-05d	Describe the articles prohibited from Security Areas cited in 10 CFR part 860 Trespassing on Administration Property and Title 41 CFR Part 101 Federal Property Management Regulations.	Working Level
1171-05e	List the types of privately owned articles prohibited from a security area.	Working Level
1171-05f	Describe the level of protection given to a property protection area.	Working Level
1171-05g	Describe the level of protection, access requirements, and storage requirements for a limited area.	Working Level
1171-05h	Describe the level of protection, access requirements and storage requirements for an exclusion area.	Working Level
1171-05i	Describe the level of protection for a Protected Areas.	Working Level
1171-05j	Discuss function and performance of personnel entry/exit and vehicle entry inspections for those entering a protected area.	Working Level
1171-05k	Describe the response to an intrusion alarm within a protected area.	Working Level
1171-05l	Describe the level of protection and access requirements for a Vital Area.	Working Level
1171-05m	Describe the level of protection for a material access area.	Working Level
1171-05n	Discuss the entry/exit inspections required for a Material Access Area.	Working Level
1171-05o	Describe the response to an intrusion alarm within a material access area.	Working Level

Course #	Competency Description	Proficiency Level
PHY-128DB Introduction to Basic Survey (Correspondence Course)		
1171-04a	Describe access procedures to storage repositories.	Familiarity Level
1171-04b	Describe procedures to prevent and detect unauthorized access to a storage repository.	Familiarity Level
1171-04g	Discuss the protection provided to vital equipment.	Familiarity Level
1171-05a	Describe the different security areas.	Familiarity Level
1171-05b	Discuss controls to detect, assess, deter, and prevent unauthorized access to Security Areas.	Familiarity Level
1171-05c	Describe when random entry/exit inspections are permitted and give reasons for those inspections.	Familiarity Level
1171-05d	Describe the articles prohibited from Security Areas cited in 10 CFR part 860 Trespassing on Administration Property and Title 41 CFR Part 101 Federal Property Management Regulations.	Working Level
1171-05e	List the types of privately owned articles prohibited from a security area.	Working Level
1171-05f	Describe the level of protection given to a property protection area.	Familiarity Level
1171-05g	Describe the level of protection, access requirements, and storage requirements for a limited area.	Familiarity Level
1171-05h	Describe the level of protection, access requirements and storage requirements for an exclusion area.	Familiarity Level
1171-05i	Describe the level of protection for a Protected Areas.	Familiarity Level
1171-05n	Discuss the entry/exit inspections required for a Material Access Area.	Familiarity Level
1171-07a	Conduct an assessment of the contents and accuracy of the contractor's protection and control planning.	Familiarity Level
1171-07b	Assess the contractor's methods for protecting special nuclear material and vital equipment.	Familiarity Level
1171-07c	Assess the contractor's program for protecting and controlling classified matter.	Familiarity Level
1171-07e	Assess the contractor's program for establishing, controlling, and maintaining security and restricted access areas.	Familiarity Level
1171-07f	Assess and approve the following protection elements established by the contractor: + Intrusion detection and assessment systems + Control and entry/exit inspections + Barriers and locks + Secure storage + Communications + Acceptance and validation testing + Maintenance + Posting notices + Security badges and credentials	Familiarity Level
1171-19b	Discuss the requirements for each of the following containment boundaries including category considerations: protected areas, materials access areas; materials balance areas; storage repositories; and processing areas.	Familiarity Level
1171-22b	Assess whether the contractor's performance testing program for material control and accountability meets the requirements of DOE O 470.1, Safeguards and Security Program.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-22d	Assess the facility's administrative controls that ensure the integrity and quality of systems and procedures for material control and accountability.	Familiarity Level
1171-22f	Audit the facility's physical inventory program for nuclear materials.	Familiarity Level
1171-22g	Assess the facility's graded program for controlling personnel access to: nuclear materials; data for nuclear materials accountability, inventory, and measurement; data generating equipment; and other items/equipment where misuse or tampering could lead to compromise of the safeguards system.	Familiarity Level
1171-22h	Assess the contractor's graded surveillance program for monitoring nuclear materials, detecting unauthorized activities or anomalous conditions, and for reporting material and facility status.	Familiarity Level
1171-22i	Assess the contractor's capability to detect and assess the unauthorized removal of nuclear materials.	Familiarity Level
1171-26a	Discuss classification levels and categories and the degree of control required for each.	Familiarity Level
1171-26b	Describe the appropriate clearance level for access to each classification level.	Familiarity Level
1171-33b	Describe the major safeguards and security objectives within the Department.	Familiarity Level
1171-33e	Describe the levels of access authorization used within the DOE.	Familiarity Level
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-36a	Discuss the contents of the Site-Specific Security Plan, Facility Descriptions and Operational Plans and the interrelationship between them.	Familiarity Level
1171-36b	Discuss the processes for reviewing and validating site-specific security plans, facility descriptions and operational plans.	Familiarity Level
1171-36c	Discuss the resources necessary to develop a site safeguards and security plan including necessary site documentation and on-call expertise.	Familiarity Level
1171-38a	Discuss the responsibilities and authorities of the heads of Field elements.	Familiarity Level
1171-38b	Describe the facility importance rating and approval systems.	Familiarity Level
1171-38c	Describe the general survey requirements.	Familiarity Level
1171-38d	Describe the process for conducting safeguards and security surveys.	Familiarity Level
1171-41a	Discuss the basic requirements of material control and accountability.	Familiarity Level
1171-55a	Describe the approval process of a new facility or interest at a Department facility.	Familiarity Level
1171-55b	Discuss the safeguards and security survey process.	Familiarity Level
1171-55c	Discuss the ratings given during a safeguards and security survey.	Familiarity Level
1171-55d	Discuss the appropriate follow-up actions necessary for each type of survey rating.	Familiarity Level

Course #	Competency Description	Proficiency Level
PHY-130 Basic Survey		
1171-01a	Describe the three primary functions of a physical protection system.	Familiarity Level
1171-01c	Describe the fundamental characteristics of ? Exterior intrusion sensors? Interior intrusion sensors	Familiarity Level
1171-01h	Describe the purpose of access delay in a physical protection system.	Familiarity Level
1171-03k	Discuss the requirements of the following protection elements:+ Intrusion detection and assessment systems+ Access control and entry/exit inspections+ Barriers and locks+ Secure storage+ Communications+ Acceptance and validation testing Maintenance+ Posting notices+ Security badges and credentials	Familiarity Level
1171-04a	Describe access procedures to storage repositories.	Working Level
1171-04b	Describe procedures to prevent and detect unauthorized access to a storage repository.	Working Level
1171-04g	Discuss the protection provided to vital equipment.	Familiarity Level
1171-05a	Describe the different security areas.	Working Level
1171-05b	Discuss controls to detect, assess, deter, and prevent unauthorized access to Security Areas.	Working Level
1171-05c	Describe when random entry/exit inspections are permitted and give reasons for those inspections.	Working Level
1171-05d	Describe the articles prohibited from Security Areas cited in 10 CFR part 860 Trespassing on Administration Property and Title 41 CFR Part 101 Federal Property Management Regulations.	Working Level
1171-05e	List the types of privately owned articles prohibited from a security area.	Working Level
1171-05f	Describe the level of protection given to a property protection area.	Working Level
1171-05g	Describe the level of protection, access requirements, and storage requirements for a limited area.	Working Level
1171-05h	Describe the level of protection, access requirements and storage requirements for an exclusion area.	Working Level
1171-05i	Describe the level of protection for a Protected Areas.	Working Level
1171-05j	Discuss function and performance of personnel entry/exit and vehicle entry inspections for those entering a protected area.	Working Level
1171-05k	Describe the response to an intrusion alarm within a protected area.	Familiarity Level
1171-05l	Describe the level of protection and access requirements for a Vital Area.	Familiarity Level
1171-05m	Describe the level of protection for a material access area.	Familiarity Level
1171-05n	Discuss the entry/exit inspections required for a Material Access Area.	Working Level
1171-05o	Describe the response to an intrusion alarm within a material access area.	Familiarity Level
1171-05p	Describe the level of protection for Sensitive Compartmented Information Facilities.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-07a	Conduct an assessment of the contents and accuracy of the contractor's protection and control planning.	Working Level
1171-07b	Assess the contractor's methods for protecting special nuclear material and vital equipment.	Working Level
1171-07c	Assess the contractor's program for protecting and controlling classified matter.	Working Level
1171-07e	Assess the contractor's program for establishing, controlling, and maintaining security and restricted access areas.	Working Level
1171-07f	Assess and approve the following protection elements established by the contractor: + Intrusion detection and assessment systems + Control and entry/exit inspections + Barriers and locks + Secure storage + Communications + Acceptance and validation testing + Maintenance + Posting notices + Security badges and credentials	Familiarity Level
1171-07g	Review for approval the contractor's protective force orders plans, and procedures.	Working Level
1171-11a	Discuss the security principle that serves as a basis for the Control of Classified Visits Program.	Familiarity Level
1171-13d	Assess DOE personnel security staff capability to effectively adjudicate information contained in reports of investigation, personnel security interviews, and Department sponsored mental evaluations.	Working Level
1171-14b	Describe the categories of nuclear materials within the DOE.	Familiarity Level
1171-14c	Describe the attractiveness levels of nuclear materials within the DOE.	Familiarity Level
1171-16b	Discuss the function of each of the following nuclear material control programs: + Access Control + Surveillance + Detection/assessment	Familiarity Level
1171-17b	Discuss the concept of defense-in-depth as it applies to material control and accountability.	Familiarity Level
1171-17e	Explain how nuclear materials are categorized using material type, attractiveness levels, and material quantities.	Familiarity Level
1171-17f	Discuss how materials categorization relates to the graded safeguards principle.	Familiarity Level
1171-17g	Discuss how vulnerability assessments, performance testing, and performance requirements serve as loss detection elements.	Familiarity Level
1171-19b	Discuss the requirements for each of the following containment boundaries including category considerations: protected areas, materials access areas; materials balance areas; storage repositories; and processing areas.	Familiarity Level
1171-22b	Assess whether the contractor's performance testing program for material control and accountability meets the requirements of DOE O 470.1, Safeguards and Security Program.	Familiarity Level
1171-22d	Assess the facility's administrative controls that ensure the integrity and quality of systems and procedures for material control and accountability.	Familiarity Level
1171-22f	Audit the facility's physical inventory program for nuclear materials.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-22g	Assess the facility's graded program for controlling personnel access to: nuclear materials; data for nuclear materials accountability, inventory, and measurement; data generating equipment; and other items/equipment where misuse or tampering could lead to compromise of the safeguards system.	Familiarity Level
1171-22h	Assess the contractor's graded surveillance program for monitoring nuclear materials, detecting unauthorized activities or anomalous conditions, and for reporting material and facility status.	Familiarity Level
1171-22i	Assess the contractor's capability to detect and assess the unauthorized removal of nuclear materials.	Familiarity Level
1171-26a	Discuss classification levels and categories and the degree of control required for each.	Familiarity Level
1171-26b	Describe the appropriate clearance level for access to each classification level.	Familiarity Level
1171-33b	Describe the major safeguards and security objectives within the Department.	Familiarity Level
1171-33e	Describe the levels of access authorization used within the DOE.	Familiarity Level
1171-33f	Describe the graded approach policy.	Familiarity Level
1171-36a	Discuss the contents of the Site-Specific Security Plan, Facility Descriptions and Operational Plans and the interrelationship between them.	Familiarity Level
1171-36b	Discuss the processes for reviewing and validating site-specific security plans, facility descriptions and operational plans.	Familiarity Level
1171-36c	Discuss the resources necessary to develop a site safeguards and security plan including necessary site documentation and on-call expertise.	Familiarity Level
1171-37b	Assess the contractor's ability to identify and test critical system elements during acceptance and validation tests.	Familiarity Level
1171-37c	Discuss the required frequency of performance testing.	Familiarity Level
1171-37g	Describe what determines unsatisfactory test results and how these are resolved.	Familiarity Level
1171-38a	Discuss the responsibilities and authorities of the heads of Field elements.	Working Level
1171-38b	Describe the facility importance rating and approval systems.	Working Level
1171-38c	Describe the general survey requirements.	Working Level
1171-38d	Describe the process for conducting safeguards and security surveys.	Working Level
1171-41a	Discuss the basic requirements of material control and accountability.	Familiarity Level
1171-43a	Discuss classification levels and the degree of control required for each of the above directives.	Familiarity Level
1171-43b	Describe the appropriate clearance level for access to each classification level.	Familiarity Level
1171-45e	Discuss the use of risk analysis as it applies to safeguards and security programs.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-45g	Discuss the purpose of alternative means and deviations including the following terms: + Variance + Waiver + Exception	Familiarity Level
1171-51b	Describe and explain the application of the following root cause analysis processes in the performance of occurrence investigations: + Events and causal factor charting+ Root cause coding + Recommendation generation	Familiarity Level
1171-51e	Describe various data gathering techniques and the use of trending/history when analyzing problems.	Familiarity Level
1171-54e	Assess supporting documentation (vulnerability assessments, cost/benefit analyses, implementation procedures, guidelines, performance exercises, etc.).	Familiarity Level
1171-55a	Describe the approval process of a new facility or interest at a Department facility.	Working Level
1171-55b	Discuss the safeguards and security survey process.	Working Level
1171-55c	Discuss the ratings given during a safeguards and security survey.	Working Level
1171-55d	Discuss the appropriate follow-up actions necessary for each type of survey rating.	Working Level
PHY-136 Safeguards and Security Information Management System (SSIMS)-Data Entry and Query		
1171-38c	Describe the general survey requirements.	Familiarity Level
1171-38d	Describe the process for conducting safeguards and security surveys.	Familiarity Level
1171-55a	Describe the approval process of a new facility or interest at a Department facility.	Familiarity Level
1171-55b	Discuss the safeguards and security survey process.	Familiarity Level
1171-55c	Discuss the ratings given during a safeguards and security survey.	Familiarity Level
1171-55d	Discuss the appropriate follow-up actions necessary for each type of survey rating.	Familiarity Level
PHY-202 Survey of Physical Security Systems		
1171-01a	Describe the three primary functions of a physical protection system.	Working Level
1171-01b	Describe the characteristics of an effective physical protection system.	Working Level
1171-01c	Describe the fundamental characteristics of ? Exterior intrusion sensors? Interior intrusion sensors	Working Level
1171-01d	Using a list of exterior and interior sensors, describe the classification that should be assigned to each type of sensor.	Familiarity Level
1171-01f	Describe the components of a comprehensive entry control system.	Familiarity Level
1171-01h	Describe the purpose of access delay in a physical protection system.	Familiarity Level
1171-01i	Describe the type of access delay mechanisms used within the Department.	Working Level
1171-01j	Discuss the following terms:? Probability of detection? Delay time	Working Level

Course #	Competency Description	Proficiency Level
1171-04b	Describe procedures to prevent and detect unauthorized access to a storage repository.	Working Level
1171-05a	Describe the different security areas.	Working Level
1171-05b	Discuss controls to detect, assess, deter, and prevent unauthorized access to Security Areas.	Working Level
1171-05c	Describe when random entry/exit inspections are permitted and give reasons for those inspections.	Working Level
1171-05d	Describe the articles prohibited from Security Areas cited in 10 CFR part 860 Trespassing on Administration Property and Title 41 CFR Part 101 Federal Property Management Regulations.	Working Level
1171-05e	List the types of privately owned articles prohibited from a security area.	Working Level
1171-05f	Describe the level of protection given to a property protection area.	Working Level
1171-05g	Describe the level of protection, access requirements, and storage requirements for a limited area.	Working Level
1171-05h	Describe the level of protection, access requirements and storage requirements for an exclusion area.	Working Level
1171-05i	Describe the level of protection for a Protected Areas.	Working Level
1171-05j	Discuss function and performance of personnel entry/exit and vehicle entry inspections for those entering a protected area.	Working Level
1171-05k	Describe the response to an intrusion alarm within a protected area.	Working Level
1171-05l	Describe the level of protection and access requirements for a Vital Area.	Working Level
1171-05m	Describe the level of protection for a material access area.	Working Level
1171-05n	Discuss the entry/exit inspections required for a Material Access Area.	Working Level
1171-05o	Describe the response to an intrusion alarm within a material access area.	Working Level
1171-05p	Describe the level of protection for Sensitive Compartmented Information Facilities.	Familiarity Level
1171-07a	Conduct an assessment of the contents and accuracy of the contractor's protection and control planning.	Working Level
1171-07e	Assess the contractor's program for establishing, controlling, and maintaining security and restricted access areas.	Working Level
1171-07f	Assess and approve the following protection elements established by the contractor: + Intrusion detection and assessment systems + Control and entry/exit inspections + Barriers and locks + Secure storage + Communications + Acceptance and validation testing + Maintenance + Posting notices + Security badges and credentials	Working Level
1171-36a	Discuss the contents of the Site-Specific Security Plan, Facility Descriptions and Operational Plans and the interrelationship between them.	Familiarity Level
1171-36b	Discuss the processes for reviewing and validating site-specific security plans, facility descriptions and operational plans.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-36c	Discuss the resources necessary to develop a site safeguards and security plan including necessary site documentation and on-call expertise.	Familiarity Level
1171-38a	Discuss the responsibilities and authorities of the heads of Field elements.	Working Level
1171-38b	Describe the facility importance rating and approval systems.	Working Level
1171-38c	Describe the general survey requirements.	Working Level
1171-38d	Describe the process for conducting safeguards and security surveys.	Working Level
1171-38e	Describe the actions systems for survey ratings and follow-up.	Familiarity Level
1171-55b	Discuss the safeguards and security survey process.	Familiarity Level
PHY-210DB Facility Security Officer Orientation (Correspondence Course)		
1171-03d	Discuss the denial strategy used to protect safeguards and security interests.	Working Level
1171-03e	Describe the containment strategy for Category I and II special nuclear material.	Working Level
1171-03f	Discuss the recapture/recovery or pursuit strategy should containment fail.	Working Level
1171-03g	Discuss the programs designed to mitigate radiological / toxicological sabotage.	Working Level
1171-04c	Describe the procedures for investigating and reporting abnormal conditions.	Working Level
1171-05a	Describe the different security areas.	Familiarity Level
1171-05b	Discuss controls to detect, assess, deter, and prevent unauthorized access to Security Areas.	Familiarity Level
1171-05d	Describe the articles prohibited from Security Areas cited in 10 CFR part 860 Trespassing on Administration Property and Title 41 CFR Part 101 Federal Property Management Regulations.	Familiarity Level
1171-07a	Conduct an assessment of the contents and accuracy of the contractor's protection and control planning.	Working Level
1171-07e	Assess the contractor's program for establishing, controlling, and maintaining security and restricted access areas.	Working Level
1171-07f	Assess and approve the following protection elements established by the contractor: + Intrusion detection and assessment systems + Control and entry/exit inspections + Barriers and locks + Secure storage + Communications + Acceptance and validation testing + Maintenance + Posting notices + Security badges and credentials	Working Level
1171-07g	Review for approval the contractor's protective force orders plans, and procedures.	Working Level
PHY-230 Facility Survey Team Leader		

Course #	Competency Description	Proficiency Level
1171-03k	Discuss the requirements of the following protection elements:+ Intrusion detection and assessment systems+ Access control and entry/exit inspections+ Barriers and locks+ Secure storage+ Communications+ Acceptance and validation testing Maintenance+ Posting notices+ Security badges and credentials	Familiarity Level
1171-07a	Conduct an assessment of the contents and accuracy of the contractor's protection and control planning.	Working Level
1171-07b	Assess the contractor's methods for protecting special nuclear material and vital equipment.	Working Level
1171-07c	Assess the contractor's program for protecting and controlling classified matter.	Working Level
1171-07d	Review and approve the contractor's program for protecting and controlling unclassified irradiated reactor fuel in transit.	Working Level
1171-07e	Assess the contractor's program for establishing, controlling, and maintaining security and restricted access areas.	Working Level
1171-07f	Assess and approve the following protection elements established by the contractor:+ Intrusion detection and assessment systems + Control and entry/exit inspections + Barriers and locks + Secure storage + Communications + Acceptance and validation testing + Maintenance + Posting notices + Security badges and credentials	Working Level
1171-07g	Review for approval the contractor's protective force orders plans, and procedures.	Working Level
1171-13a	Assess Department of Energy (DOE) or contractor strategies for maintaining the minimum number of access authorizations consistent with operational efficiency.	Familiarity Level
1171-13b	Assess the effectiveness of management and operating contractor preprocessing checks conducted in accordance with Department of Energy Acquisition Regulations (DEAR).	Familiarity Level
1171-13c	Assess contractor compliance with requirements for timely reporting of access authorization terminations to the Department of Energy (DOE).	Familiarity Level
1171-13f	Assess the completeness/compliance factors of Personnel Security Assurance Program plans approved by field office managers.	Familiarity Level
1171-17a	Using the site material control and accountability plan, discuss the following requirements: + Measurements and measurement control + Planning and management + Threat considerations + Performance criteria + Accounting system + Physical inventories + Control limits+ Loss detection elements + Nuclear material alarms + Nuclear material access control + Containment + Surveillance	Familiarity Level
1171-17b	Discuss the concept of defense-in-depth as it applies to material control and accountability.	Familiarity Level
1171-17e	Explain how nuclear materials are categorized using material type, attractiveness levels, and material quantities.	Familiarity Level
1171-17f	Discuss how materials categorization relates to the graded safeguards principle.	Familiarity Level
1171-17g	Discuss how vulnerability assessments, performance testing, and performance requirements serve as loss detection elements.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-22b	Assess whether the contractor's performance testing program for material control and accountability meets the requirements of DOE O 470.1, Safeguards and Security Program.	Working Level
1171-22d	Assess the facility's administrative controls that ensure the integrity and quality of systems and procedures for material control and accountability.	Working Level
1171-22f	Audit the facility's physical inventory program for nuclear materials.	Familiarity Level
1171-22g	Assess the facility's graded program for controlling personnel access to: nuclear materials; data for nuclear materials accountability, inventory, and measurement; data generating equipment; and other items/equipment where misuse or tampering could lead to compromise of the safeguards system.	Working Level
1171-22h	Assess the contractor's graded surveillance program for monitoring nuclear materials, detecting unauthorized activities or anomalous conditions, and for reporting material and facility status.	Working Level
1171-22i	Assess the contractor's capability to detect and assess the unauthorized removal of nuclear materials.	Working Level
1171-26a	Discuss classification levels and categories and the degree of control required for each.	Working Level
1171-26b	Describe the appropriate clearance level for access to each classification level.	Working Level
1171-33b	Describe the major safeguards and security objectives within the Department.	Working Level
1171-33e	Describe the levels of access authorization used within the DOE.	Working Level
1171-33f	Describe the graded approach policy.	Working Level
1171-36a	Discuss the contents of the Site-Specific Security Plan, Facility Descriptions and Operational Plans and the interrelationship between them.	Familiarity Level
1171-36b	Discuss the processes for reviewing and validating site-specific security plans, facility descriptions and operational plans.	Familiarity Level
1171-36c	Discuss the resources necessary to develop a site safeguards and security plan including necessary site documentation and on-call expertise.	Familiarity Level
1171-37c	Discuss the required frequency of performance testing.	Familiarity Level
1171-37g	Describe what determines unsatisfactory test results and how these are resolved.	Familiarity Level
1171-38a	Discuss the responsibilities and authorities of the heads of Field elements.	Working Level
1171-38b	Describe the facility importance rating and approval systems.	Working Level
1171-38c	Describe the general survey requirements.	Working Level
1171-38d	Describe the process for conducting safeguards and security surveys.	Working Level
1171-38e	Describe the actions systems for survey ratings and follow-up.	Working Level
1171-41a	Discuss the basic requirements of material control and accountability.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-43a	Discuss classification levels and the degree of control required for each of the above directives.	Working Level
1171-45e	Discuss the use of risk analysis as it applies to safeguards and security programs.	Familiarity Level
1171-45f	Discuss the purpose of independent assessments of safeguards and security programs.	Working Level
1171-45g	Discuss the purpose of alternative means and deviations including the following terms: + Variance + Waiver + Exception	Working Level
1171-48a	Discuss the key elements of the contractual relationship between the DOE and its contractors.	Familiarity Level
1171-48b	Discuss the roles and responsibilities of safeguards and security personnel in the contract management and administration processes.	Familiarity Level
1171-51b	Describe and explain the application of the following root cause analysis processes in the performance of occurrence investigations: + Events and causal factor charting+ Root cause coding + Recommendation generation	Familiarity Level
1171-51d	Compare and contrast immediate, short term, and long term actions taken as the result of problem identification or an occurrence.	Working Level
1171-51e	Describe various data gathering techniques and the use of trending/history when analyzing problems.	Working Level
1171-52a	Given event and occurrence data, apply problem analysis techniques and identify the problems and how they might have been avoided.	Familiarity Level
1171-53a	Discuss the key processes used in trending and analysis of safeguards and security information.	Familiarity Level
1171-53b	Using an actual list of performance indicators, e.g., security infractions/violations, property loss, inventory deficiencies, determine what type of assessments should be performed and in what areas.	Familiarity Level
1171-53c	Given a set of incident/occurrence report data for a specified period, analyze the information for safeguards and security performance, trends, or compliance problems.	Familiarity Level
1171-54b	Assess the contractor's facility descriptions and operational plans to ensure that the plans describe the site protection strategies, facility protection systems, and programs currently in place.	Working Level
1171-54d	Assess the contractor's ability to ensure that performance levels are based on performance indicators such as vulnerability assessments, system performance tests, surveys, inspections, evaluations, and training levels.	Working Level
1171-54e	Assess supporting documentation (vulnerability assessments, cost/benefit analyses, implementation procedures, guidelines, performance exercises, etc.).	Working Level
1171-55a	Describe the approval process of a new facility or interest at a Department facility.	Working Level
1171-55b	Discuss the safeguards and security survey process.	Working Level
1171-55c	Discuss the ratings given during a safeguards and security survey.	Working Level

Course #	Competency Description	Proficiency Level
1171-55d	Discuss the appropriate follow-up actions necessary for each type of survey rating.	Working Level
PPM-112DB On-the-Job Trainers (OJT) (Correspondence Course)		
1171-00a	S&S Courses in Analysis	Familiarity Level
PPM-151 Foreign Ownership, Control, or Influence		
1171-31c	Perform a Foreign Ownership, Control, or Influence (FOCI) determination of a contractor.	Demonstrate the ability
Principles of Effective Assessment and Evaluation		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-099DE General Technical Base Addendum		
1146-15a-07	Discuss general safety precautions for working near low voltage electrical equipment and high voltage electrical equipment.	Familiarity Level
1146-15b-07	Describe basic electrical isolation devices and methods.	Familiarity Level
1146-15c-07	Describe how safety considerations differ for alternating current and direct current.	Familiarity Level
1146-15d-07	Describe basic office electrical safety precautions.	Familiarity Level
1146-15e-07	Discuss NFPA 70E, Standard for Electrical Safety in the Workplace.	Familiarity Level
1146-20a-07	Describe the relevant requirements, purpose, interrelationships, and importance of the following regulations and directives: * 10 CFR 830, ?Nuclear Safety Management?, * 29 CFR 1910.120, ?Hazardous Waste Operations and Emergency Response?, * DOE O 151.1C, Comprehensive Emergency Management, * DOE G 151.1-1A, Emergency Management Fundamentals and the Operational Emergency Base Program: Emergency Management Guide, * DOE G 151.1-2, Technical Planning Basis: Emergency Management Guide, * DOE G 151.1-3, Programmatic Elements: Emergency Management Guide, * DOE G 151.1-4, Response Elements: Emergency Management Guide (CON'T.)*	Familiarity Level
1146-20aa-07	(CON'T.) * DOE G 151.1-5, Biosafety Facilities: Emergency Management Guide.	Familiarity Level
1146-20b-07	State what is meant by an operational emergency.	Familiarity Level
1146-20c-07	Describe the purpose of a facility emergency plan and implementing procedures.	Familiarity Level
1146-20d-07	Discuss the requirements for developing the hazards survey and the emergency planning hazards assessment.	Familiarity Level
1146-20e-07	Describe the key roles and safety considerations during emergency response: * National Incident Management System, * Incident Command System, * Incident commander, * Emergency director.	Familiarity Level
1146-20f-07	Discuss the requirements for testing emergency plans and for interfacing with state and local officials and the public.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-24a-07	Discuss the purpose and scope of DOE P 226.1A, Department of Energy Oversight Policy.	Familiarity Level
1146-24b-07	Discuss DOE's oversight model.	Familiarity Level
1146-24c-07	Describe the roles and responsibilities of the Central Technical Authorities, the Chief of Defense Nuclear Safety and the Chief of Nuclear Safety, program offices and field offices, facility representatives, and safety system oversight personnel.	Familiarity Level
1146-24d-07	Describe the roles and responsibilities of the DOE's Office of Independent Oversight.	Familiarity Level
1146-24e-07	Describe "assurance systems" as found in DOE P 226.1.	Familiarity Level
1146-24f-07	Describe the attributes of effective oversight.	Familiarity Level
1146-24g-07	Discuss the requirements imposed by DOE O 226.1 on the contractors that operate DOE nuclear facilities.	Familiarity Level
1146-24h-07	Describe criteria review and approach documents and their use in the performance of oversight activities.	Familiarity Level
1146-24i-07	Describe the role of the Defense Nuclear Facilities Safety Board in oversight of DOE defense nuclear facilities.	Familiarity Level
1146-25a-07	Describe the objectives of DOE O 210.2, DOE Corporate Operating Experience Program.	Familiarity Level
1146-25b-07	Describe the types of information that are collected and analyzed.	Familiarity Level
1146-25c-07	Describe the types of operating experience reports that are developed.	Familiarity Level
1146-26a-07	Describe the accident investigation process.	Familiarity Level
1146-26b-07	Describe the roles and responsibilities of key participants in accident investigations.	Familiarity Level
1146-26c-07	Describe accident investigation data collection and data analysis techniques.	Familiarity Level
1146-26d-07	Describe the development of conclusions and judgments of need.	Familiarity Level
1146-27a-07	State the purpose of DOE O 410.1, Central Technical Authority Responsibility Regarding Nuclear Safety Requirements.	Familiarity Level
1146-27b-07	Define the following terms: * Exception, * Exemption.	Familiarity Level
1146-27c-07	List all the documents and directives that require Central Technical Authorities/Chief of Nuclear Safety/Chief of Defense Nuclear Safety concurrence before they are issued.	Familiarity Level
1146-27d-07	State the responsibilities of the Central Technical Authorities.	Familiarity Level
1146-27e-07	State the responsibilities of the Chief of Nuclear Safety and of the Chief of Defense Nuclear Safety.	Familiarity Level
1146-28a-07	Discuss information security programs, including control of classified materials, as described in DOE M 470.4-4, Information Security.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-28b-07	Discuss physical protection programs, including security areas, intrusion detection, and access controls, as described in DOE M 470.4-2, Physical Protection.	Familiarity Level
1146-28c-07	Describe how the design basis threat is used in safeguards and security planning in accordance with DOE M 470.4-1, Safeguards and Security Program Planning and Management.	Familiarity Level
1146-28d-07	Discuss the basic requirements of material control and accountability per DOE M 470.4-6, Nuclear Material Control and Accountability.	Familiarity Level
1146-28e-07	Discuss the responsibilities of field elements and contractor employees in identifying classified information as defined in DOE M 470.4-4, Information Security.	Familiarity Level
SAF-100DE Federal Employee Occupational Safety and Health (FEOSH) Orientation Program		
1146-00b-00	Safety Courses in Analysis	Familiarity Level
SAF-101 General Technical Base		
1146-01a-07	Identify and describe the three forces that are found within a nucleus.	Familiarity Level
1146-01b-07	Define the terms "mass defect" and "binding energy" and discuss how they are related	Familiarity Level
1146-01c-07	Describe the following processes, and trace the decay chain for a specified nuclide on the chart of the nuclides: * Alpha decay, * Beta-minus decay, * Beta-plus decay, * Electron capture.	Familiarity Level
1146-01d-07	Define the following terms: * Radioactivity, * Radioactive decay constant, * Activity, * Radioactive half-life, * Radioactive equilibrium.	Familiarity Level
1146-01e-07	Describe the following neutron-nucleus interactions: * Elastic scattering, * Inelastic scattering.	Familiarity Level
1146-01f-07	Compare and contrast capture (absorption), fission, and particle ejection nuclear reactions.	Familiarity Level
1146-02a-07	Using the liquid drop model, explain the fission process.	Familiarity Level
1146-02b-07	Compare and contrast the characteristics of fissile material, fissionable material, and fertile material.	Familiarity Level
1146-02c-07	Discuss the various energy releases that result from the fission process.	Familiarity Level
1146-02d-07	Define the term "criticality" and explain how criticality is detected.	Familiarity Level
1146-02e-07	List five factors that affect criticality.	Familiarity Level
1146-02f-07	Identify the hazards that result from an unwanted criticality.	Familiarity Level
1146-02g-07	Explain the double contingency principle as it relates to criticality control.	Familiarity Level
1146-02h-07	Discuss the potential hazards associated with accidental/unwanted criticality.	Familiarity Level
1146-03a-07	Define the term "ionizing radiation."	Familiarity Level
1146-03b-07	Describe how nuclear radiation is generated.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-03c-07	Describe each of the following forms of radiation in terms of structure, electrostatic charge, interactions with matter, and penetration potential: * Alpha, * Gamma, * Beta, * Neutron (slow and fast).	Familiarity Level
1146-03d-07	Discuss the types of materials that are best suited for shielding the radiation types listed in 3c.	Familiarity Level
1146-03e-07	Describe the biological effects of ionizing radiation (acute and chronic).	Familiarity Level
1146-03f-07	Discuss the primary hazards to the human body (the whole body or the skin or that are internal) of each type of radiation.	Familiarity Level
1146-03g-07	Discuss radiation dose, including the terms rad, rem, roentgen, and international standard units (SI), and how it is measured.	Familiarity Level
1146-03h-07	Define the term "quality factor" and discuss its application to radiation.	Familiarity Level
1146-03i-07	Discuss the meaning of ALARA and describe the basic methods for achieving ALARA.	Familiarity Level
1146-03j-07	Discuss the hazards, safe handling, storage requirements, and operational practices for each of the following nuclides in their various forms: * Plutonium, * Uranium, * Tritium.	Familiarity Level
1146-04a-07	Define the term "contamination" and list three types of contamination.	Familiarity Level
1146-04b-07	Describe three ways to control contamination.	Familiarity Level
1146-04c-07	Describe how contamination is detected.	Familiarity Level
1146-04d-07	Describe three ways contamination could enter the body and the methods used to prevent internal contamination.	Familiarity Level
1146-04e-07	Describe the methods used for internal dose determination.	Familiarity Level
1146-04f-07	Describe the types of personal protective equipment (PPE).	Familiarity Level
1146-04g-07	Describe the potential effects of radioactive contamination outside contamination areas.	Familiarity Level
1146-05a-07	Describe the proper use and function of and radiation detected by different types of thermoluminescent dosimeters and self-reading dosimetry.	Familiarity Level
1146-05b-07	State the purpose and function of the following radiation-monitoring systems: * Criticality, * Area, * Process, * Airborne.	Familiarity Level
1146-06a-07	Discuss the purpose and general requirements of 10 CFR 835, "Occupational Radiation Protection," including the following: * Access training, * Dose limits, * Posting types and uses, * Access requirements, * Differences in radiological terminology between the 1998 and 2007 revisions of 10 CFR 835.	Familiarity Level
1146-06b-07	Discuss the purpose of and general guidance provided under DOE-STD-1098-99, Radiological Control.	Familiarity Level
1146-07a-07	Discuss the following terms and the differences among them: * Low-level radioactive waste, * Hazardous waste, * Transuranic waste, * High-level radioactive waste, * Mixed hazardous waste.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-07b-07	Describe potential sources of each of the following types of waste in a DOE facility: * Low-level radioactive waste, * Hazardous waste, * Transuranic waste, * High-level radioactive waste, * Mixed hazardous waste.	Familiarity Level
1146-07c-07	Discuss the various types of storage, treatment, and disposal used to manage the following types of waste: * Low-level radioactive waste, * Hazardous waste, * Transuranic waste, * High-level radioactive waste, * Mixed hazardous waste.	Familiarity Level
1146-08a-07	Discuss the purpose of the following environmental laws as they apply to the Department and the contractors that operate its facilities: * National Environmental Policy Act (NEPA), * Resource Conservation and Recovery Act (RCRA), * Comprehensive Environmental Response, Compensation, and Liability Act-Superfund Act (CERCLA).	Familiarity Level
1146-08b-07	Using references, discuss the purpose of the following environmental laws as they apply to the Department and the contractors that operate its facilities: * Clean Water Act (CWA), including the National Pollution Discharge Elimination System (NPDES), * Clean Air Act (CAA), * Emergency Planning and Community Right-To-Know Act (EPCRA), * Federal Facilities Compliance Act (FFCA), * Pollution Prevention Act of 1990 (PPA), * Safe Drinking Water Act (SDWA), * Superfund Amendment Reauthorization Act (SARA), * Toxic Substance Control Act (TSCA), * Solid Waste Disposal Act (SWDA).	Familiarity Level
1146-08c-07	Using the following documents as references, discuss their purpose and general requirements: * DOE O 450.1, Admin. Chg.1, Environmental Protection Program, * DOE O 451.1 B, Chg. 1 (formerly DOE Order 5440.1), National Environmental Policy Act Compliance Program, * DOE O 435.1, Chg. 1, Radioactive Waste Management, * DOE Order 5400.5, Chg. 2, Radiation Protection of the Public and the Environment.	Familiarity Level
1146-08d-07	Using DOE O 450.1 as a reference, discuss the concept of an Environmental Management System.	Familiarity Level
1146-08e-07	Using DOE Order 5400.5 as a reference, discuss the concept of maintaining doses to the public and to the environment as far below dose limits and constraints as is reasonably achievable (i.e., ALARA).	Familiarity Level
1146-09a-07	Using 29 CFR 1910.120 as a reference, discuss its purpose, as it applies to the Department and the contractors that operate its facilities, with respect to the following: * Cleanup operations, * Corrective actions, * Voluntary clean-up operations, * Operations involving hazardous wastes, * Emergency response operations.	Familiarity Level
1146-09b-07	Using 29 CFR 1910.120 as a reference, discuss the role of the Department in the identification, assessment, and reaction to potential risks posed by hazardous wastes that exist at Department sites.	Familiarity Level
1146-09c-07	Describe the linkage between 10 CFR 851, ?Worker Safety and Health Program,? and 29 CFR 1910.120.	Familiarity Level
1146-10a-07	Using NEPA as a reference, discuss the Department?s responsibilities associated with NEPA and the potential consequences of noncompliance with NEPA.	Familiarity Level
1146-10b-07	Using RCRA as a reference, discuss the Department?s responsibilities associated with RCRA and the potential consequences of noncompliance with RCRA.	Familiarity Level
1146-11a-07	Explain the objective of ISM.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-11b-07	Describe how the seven guiding principles in the ISM policy are used to implement an integrated safety management philosophy.	Familiarity Level
1146-11c-07	Describe the five core safety management functions in the ISM policy and discuss how they provide the necessary structure for work activities.	Familiarity Level
1146-11d-07	Identify and discuss existing Department manuals, guides, standards, and other documents and practices that support implementation of ISM, including the following: * DOE M 450.4-1, Integrated Safety Management System Manual, * DOE G 450.4-1B, Integrated Safety Management System Guides, * Standards/Requirements Identification Documents (S/RIDs) and Work Smart Standards, * Contract reform and performance-based contracting.	Familiarity Level
1146-11e-07	Discuss the purpose, content, and application of DOE P 450.4, Safety Management System Policy.	Familiarity Level
1146-11f-07	Discuss the relationship of the DEAR Clause 970.5223-1, ?Integration of Environment, Safety and Health into Work Planning and Execution,? to the ISM process.	Familiarity Level
1146-11g-07	Describe the requirements in 10 CFR 830 Subpart A and DOE O 414.1C to integrate the ISM system description with the quality assurance program.	Familiarity Level
1146-12a-07	Discuss the requirements for the development and approval of worker safety and health programs.	Familiarity Level
1146-12b-07	Describe management responsibilities and worker rights and responsibilities.	Familiarity Level
1146-12c-07	Describe hazard identification, assessment, prevention, and abatement.	Familiarity Level
1146-12d-07	Discuss applicable safety and health standards.	Familiarity Level
1146-12e-07	Discuss the process for obtaining a variance from a safety and health standard.	Familiarity Level
1146-12f-07	Discuss the 10 CFR 851 enforcement process.	Familiarity Level
1146-13a-07	Using the following documents as references, discuss the purpose of 29 CFR 1910, ?Occupational Safety and Health Standards?; 29 CFR 1926, ?Safety and Health Regulations for Construction Industry?; and 29 CFR 1960, ?Basic Program Elements for Federal Employee Occupational Safety and Health and Related Matters.?	Familiarity Level
1146-13b-07	Discuss the regulatory interfaces between the Occupational Safety and Health Administration (OSHA) and other regulatory agencies.	Familiarity Level
1146-13c-07	Describe DOE?s responsibilities with respect to the Occupational Safety and Health Act.	Familiarity Level
1146-13d-07	Discuss workplace inspection techniques.	Familiarity Level
1146-13e-07	Discuss the major components of the OSHA hazard communication protocol.	Familiarity Level
1146-13f-07	Discuss how the OSHA Rule is invoked on DOE Federal and contractor staff by 10 CFR 851 and DOE O 440.1, respectively.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-14a-07	Discuss the critical aspects of fire prevention, fire response planning, and control of fires.	Familiarity Level
1146-14b-07	Describe fire hazards that could affect the safety of facility personnel.	Familiarity Level
1146-14c-07	Discuss the key elements of the National Fire Protection Association (NFPA) Life Safety Code.	Familiarity Level
1146-14d-07	Discuss the purpose of a fire hazard analysis.	Familiarity Level
1146-14e-07	Describe the characteristics of and the methods/agents used to extinguish the following classes of fires: * Class A, * Class B, * Class C, * Class D.	Familiarity Level
1146-14f-07	Discuss the key components and use of building fire protection equipment, including detection, alarm, and communication systems, and extinguishing systems (automatic and manual).	Familiarity Level
1146-15a-07	Discuss general safety precautions for working near low voltage electrical equipment and high voltage electrical equipment.	Familiarity Level
1146-15b-07	Describe basic electrical isolation devices and methods.	Familiarity Level
1146-15c-07	Describe how safety considerations differ for alternating current and direct current.	Familiarity Level
1146-15d-07	Describe basic office electrical safety precautions.	Familiarity Level
1146-15e-07	Discuss NFPA 70E, Standard for Electrical Safety in the Workplace.	Familiarity Level
1146-16a-07	Define the term "industrial hygiene," including the elements of anticipation, recognition, evaluation, and control of health hazards in the workplace.	Familiarity Level
1146-16b-07	Discuss basic industrial hygiene concepts and terminology, including the following: * Routes of exposure (inhalation, ingestion, dermal injection), * Dose and toxicity (acute, chronic, concentration), * Exposure limits [permissible exposure limit (PEL), time-weighted average (TWA), threshold limit values (TLV), short term exposure limit (STEL), ceiling, action level, parts per million (PPM), milligrams per cubic meter (mg/m ³)], * Hierarchy of controls (engineering, substitution, administrative, PPE), * Health hazards (chemical, physical, biological), * Key elements of a carcinogen control program, including carcinogenic chemicals and asbestos control.	Familiarity Level
1146-16c-07	Discuss the key elements (exposure assessment and monitoring, engineering controls, respiratory protection, PPE and clothing, housekeeping, labeling, training, medical surveillance, record keeping) of an industrial hygiene program.	Familiarity Level
1146-16d-07	Discuss industrial hygiene requirements as found in the following regulations: * 10 CFR 850, "Chronic Beryllium Disease Prevention Program", * 10 CFR 851, "Worker Safety and Health Program".	Familiarity Level
1146-16e-07	Discuss the key elements of a hazard communication program and the use of material safety data sheets.	Familiarity Level
1146-16f-07	Discuss the importance of the following types of equipment used for personnel protection and safety: * Eye protection, * Ear protection, * Protective clothing/gloves, * Respiratory protection.	Familiarity Level
1146-17a-07	Discuss the purpose of DOE O 5480.19, Conduct of Operations Requirements for DOE Facilities.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-17b-07	State the eighteen chapters in attachment 1 of DOE Order 5480.19, and discuss how each chapter contributes to an effective and safe operational environment.	Familiarity Level
1146-17c-07	Discuss how each of the following Orders contributes to a proper conduct of operations environment: * DOE O 231.1A, Environment, Safety, and Health Reporting, * DOE O 433.1A, Maintenance Management Program for DOE Nuclear Facilities, * DOE O 414.1C, Quality Assurance.	Familiarity Level
1146-17d-07	Discuss proper critique principles and describe a proper critique process, including key elements.	Familiarity Level
1146-17e-07	Define the term "root cause" and explain its importance in operational safety.	Familiarity Level
1146-17f-07	Define the term "lessons learned" and explain their importance in operational safety.	Familiarity Level
1146-17g-07	Describe stop work authority and the role of personnel in its application.	Familiarity Level
1146-17h-07	Describe the key elements of a lockout/tagout system.	Familiarity Level
1146-18a-07	State the purpose of DOE O 231.1A, Environment, Safety, and Health Reporting.	Familiarity Level
1146-18b-07	Define the following terms: * Event, * Condition, * Facility, * Notification report, * Occurrence report, * Reportable occurrence, * Facility representative.	Familiarity Level
1146-18c-07	Discuss the occurrence-reporting responsibilities of a facility representative.	Familiarity Level
1146-18d-07	State the different categories of reportable occurrences and discuss each.	Familiarity Level
1146-18e-07	State the major criteria groups of categorized occurrences and discuss each.	Familiarity Level
1146-19a-07	Discuss the objectives and applicability of the DOE quality requirements, including the relationship between 10 CFR 830 Subpart A and DOE O 414.1C, and the relationship between DOE quality requirements and American National Standard ASME NQA-1 for nuclear facility applications.	Familiarity Level
1146-19b-07	Discuss 10 CFR 830.4, "General Requirements"; 10 CFR 830, Subpart A, "Quality Assurance Requirements"; and DOE O 414.1C, "Requirements"; including the Federal responsibilities and the applicability of the requirements to DOE and its contractors.	Familiarity Level
1146-19c-07	Describe, in general terms, the content and objectives of the quality assurance criteria in the following categories, as found in DOE O 414.1C: * Management, * Performance, * Assessment.	Familiarity Level
1146-19d-07	Discuss the quality requirements in the following attachments (and their supporting implementing guides) of DOE O 414.1C, how the quality requirements become nuclear safety requirements for contractors, and how they apply to Federal organizations: * Attachment 3, Suspect/Counterfeit Items Prevention, and the supporting guide, DOE G 414.1-3, * Attachment 4, Corrective Action Management Program, and the supporting guide, DOE G 414.1-5, * Attachment 5, Safety Software Quality Requirements, and the supporting guide, DOE G 414.1-4.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-19e-07	Describe the Federal responsibilities for review, approval, and oversight of contractor quality assurance programs developed under 10 CFR 830 and DOE O 414.1C.	Familiarity Level
1146-20a-07	Describe the relevant requirements, purpose, interrelationships, and importance of the following regulations and directives: * 10 CFR 830, ?Nuclear Safety Management?, * 29 CFR 1910.120, ?Hazardous Waste Operations and Emergency Response?, * DOE O 151.1C, Comprehensive Emergency Management, * DOE G 151.1-1A, Emergency Management Fundamentals and the Operational Emergency Base Program: Emergency Management Guide, * DOE G 151.1-2, Technical Planning Basis: Emergency Management Guide, * DOE G 151.1-3, Programmatic Elements: Emergency Management Guide, * DOE G 151.1-4, Response Elements: Emergency Management Guide (CON'T.)*	Familiarity Level
1146-20aa-07	(CON'T.) * DOE G 151.1-5, Biosafety Facilities: Emergency Management Guide.	Familiarity Level
1146-20b-07	State what is meant by an operational emergency.	Familiarity Level
1146-20c-07	Describe the purpose of a facility emergency plan and implementing procedures.	Familiarity Level
1146-20d-07	Discuss the requirements for developing the hazards survey and the emergency planning hazards assessment.	Familiarity Level
1146-20e-07	Describe the key roles and safety considerations during emergency response: * National Incident Management System, * Incident Command System, * Incident commander, * Emergency director.	Familiarity Level
1146-20f-07	Discuss the requirements for testing emergency plans and for interfacing with state and local officials and the public.	Familiarity Level
1146-21a-07	Describe the purpose of the USQ process.	Familiarity Level
1146-21b-07	Discuss the reasons for performing a USQ determination.	Familiarity Level
1146-21c-07	Define and discuss key USQ terms.	Familiarity Level
1146-21d-07	Describe the situations that require a USQ determination.	Familiarity Level
1146-21e-07	Define the conditions for a USQ.	Familiarity Level
1146-21f-07	Describe contractor responsibilities for performing USQ determinations.	Familiarity Level
1146-21g-07	Describe site actions for identified potential inadequacy of previous safety analyses.	Familiarity Level
1146-21h-07	Discuss site actions to be taken for a USQ.	Familiarity Level
1146-21i-07	Discuss the qualification and training requirements for personnel performing safety evaluations.	Familiarity Level
1146-22a-07	Define and compare the terms "hazard?" and "risk.?"	Familiarity Level
1146-22b-07	Explain and compare the terms "safety basis,?" "design basis,?" and "authorization basis."	Familiarity Level
1146-22c-07	Discuss the relationship of DSAs to TSRs.	Familiarity Level
1146-22d-07	Describe the contractor responsibilities for TSRs and DSAs.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-22e-07	Define the following terms and discuss the purpose of each: * Safety limit, * Limiting control settings, * Limiting conditions for operation, * Surveillance requirements.	Familiarity Level
1146-22f-07	Discuss the possible source documents that may be used in developing TSRs.	Familiarity Level
1146-22g-07	Discuss the conditions that constitute a violation of TSRs.	Familiarity Level
1146-22h-07	State the general requirements for a DSA and for a preliminary documented safety analysis.	Familiarity Level
1146-23a-07	Discuss the purpose and applicability of DOE O 420.1B, Facility Safety.	Familiarity Level
1146-23b-07	Discuss the requirements imposed by DOE O 420.1B on the contractors that operate DOE nuclear facilities.	Familiarity Level
1146-23c-07	Discuss, in general terms, the focus and the content of the following sections of DOE O 420.1B: * Nuclear safety, * Fire protection, * Nuclear criticality safety, * Natural phenomena hazards mitigation, * Explosives safety, * Safety systems engineer and configuration management.	Familiarity Level
1146-24a-07	Discuss the purpose and scope of DOE P 226.1A, Department of Energy Oversight Policy.	Familiarity Level
1146-24b-07	Discuss DOE's oversight model.	Familiarity Level
1146-24c-07	Describe the roles and responsibilities of the Central Technical Authorities, the Chief of Defense Nuclear Safety and the Chief of Nuclear Safety, program offices and field offices, facility representatives, and safety system oversight personnel.	Familiarity Level
1146-24d-07	Describe the roles and responsibilities of the DOE's Office of Independent Oversight.	Familiarity Level
1146-24e-07	Describe ?assurance systems? as found in DOE P 226.1.	Familiarity Level
1146-24f-07	Describe the attributes of effective oversight.	Familiarity Level
1146-24g-07	Discuss the requirements imposed by DOE O 226.1 on the contractors that operate DOE nuclear facilities.	Familiarity Level
1146-24h-07	Describe criteria review and approach documents and their use in the performance of oversight activities.	Familiarity Level
1146-24i-07	Describe the role of the Defense Nuclear Facilities Safety Board in oversight of DOE defense nuclear facilities.	Familiarity Level
1146-25a-07	Describe the objectives of DOE O 210.2, DOE Corporate Operating Experience Program.	Familiarity Level
1146-25b-07	Describe the types of information that are collected and analyzed.	Familiarity Level
1146-25c-07	Describe the types of operating experience reports that are developed.	Familiarity Level
1146-26a-07	Describe the accident investigation process.	Familiarity Level
1146-26b-07	Describe the roles and responsibilities of key participants in accident investigations.	Familiarity Level
1146-26c-07	Describe accident investigation data collection and data analysis techniques.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-26d-07	Describe the development of conclusions and judgments of need.	Familiarity Level
1146-27a-07	State the purpose of DOE O 410.1, Central Technical Authority Responsibility Regarding Nuclear Safety Requirements.	Familiarity Level
1146-27b-07	Define the following terms: * Exception, * Exemption.	Familiarity Level
1146-27c-07	List all the documents and directives that require Central Technical Authorities/Chief of Nuclear Safety/Chief of Defense Nuclear Safety concurrence before they are issued.	Familiarity Level
1146-27d-07	State the responsibilities of the Central Technical Authorities.	Familiarity Level
1146-27e-07	State the responsibilities of the Chief of Nuclear Safety and of the Chief of Defense Nuclear Safety.	Familiarity Level
1146-28a-07	Discuss information security programs, including control of classified materials, as described in DOE M 470.4-4, Information Security.	Familiarity Level
1146-28b-07	Discuss physical protection programs, including security areas, intrusion detection, and access controls, as described in DOE M 470.4-2, Physical Protection.	Familiarity Level
1146-28c-07	Describe how the design basis threat is used in safeguards and security planning in accordance with DOE M 470.4-1, Safeguards and Security Program Planning and Management.	Familiarity Level
1146-28d-07	Discuss the basic requirements of material control and accountability per DOE M 470.4-6, Nuclear Material Control and Accountability.	Familiarity Level
1146-28e-07	Discuss the responsibilities of field elements and contractor employees in identifying classified information as defined in DOE M 470.4-4, Information Security.	Familiarity Level
SAF-105 Safety Management Fundamentals		
1137-11a-07	Discuss and characterize the role of fire protection systems within the content of technical safety basis documentation (e.g. documented safety analysis, technical safety requirements, safety evaluation report, and FHA).	Familiarity Level
1138-04b	Describe the following occupational illnesses and explain their workplace cause: * Asbestosis,* Mesothelioma,* Pneumoconiosis,* Dermatitis,* Cumulative Trauma Disorder,* Chronic Beryllium Disease,* Dermatitis,* Hypersensitivity Pneumonitis,* Chronic Obstructive Lung Disease,* Occupational Asthma,* Bronchogenic Carcinoma,* Glomerulonephritis,* Cirrhosis of Liver,* Jaundice	Familiarity Level
1138-18a	Describe the purpose, scope, and application of the requirements detailed in the listed document sections.	Familiarity Level
1138-19a	Describe the purpose, scope, and application of the requirements detailed in the listed Orders and guides with respect to industrial hygiene.	Familiarity Level
1146-06a-07	Discuss the purpose and general requirements of 10 CFR 835, ?Occupational Radiation Protection,? including the following: * Access training, * Dose limits, * Posting types and uses, * Access requirements, * Differences in radiological terminology between the 1998 and 2007 revisions of 10 CFR 835.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-08a-07	Discuss the purpose of the following environmental laws as they apply to the Department and the contractors that operate its facilities: * National Environmental Policy Act (NEPA), * Resource Conservation and Recovery Act (RCRA), * Comprehensive Environmental Response, Compensation, and Liability Act-Superfund Act (CERCLA).	Familiarity Level
1146-08c-07	Using the following documents as references, discuss their purpose and general requirements: * DOE O 450.1, Admin. Chg.1, Environmental Protection Program, * DOE O 451.1 B, Chg. 1 (formerly DOE Order 5440.1), National Environmental Policy Act Compliance Program, * DOE O 435.1, Chg. 1, Radioactive Waste Management, * DOE Order 5400.5, Chg. 2, Radiation Protection of the Public and the Environment.	Familiarity Level
1146-08d-07	Using DOE O 450.1 as a reference, discuss the concept of an Environmental Management System.	Familiarity Level
1146-11b-07	Describe how the seven guiding principles in the ISM policy are used to implement an integrated safety management philosophy.	Familiarity Level
1146-11g-07	Describe the requirements in 10 CFR 830 Subpart A and DOE O 414.1C to integrate the ISM system description with the quality assurance program.	Familiarity Level
1146-13e-07	Discuss the major components of the OSHA hazard communication protocol.	Familiarity Level
1146-13f-07	Discuss how the OSHA Rule is invoked on DOE Federal and contractor staff by 10 CFR 851 and DOE O 440.1, respectively.	Familiarity Level
1146-14a-07	Discuss the critical aspects of fire prevention, fire response planning, and control of fires.	Familiarity Level
1146-14e-07	Describe the characteristics of and the methods/agents used to extinguish the following classes of fires: * Class A, * Class B, * Class C, * Class D.	Familiarity Level
1146-14f-07	Discuss the key components and use of building fire protection equipment, including detection, alarm, and communication systems, and extinguishing systems (automatic and manual).	Familiarity Level
1146-16a-07	Define the term "industrial hygiene," including the elements of anticipation, recognition, evaluation, and control of health hazards in the workplace.	Familiarity Level
1146-16b-07	Discuss basic industrial hygiene concepts and terminology, including the following: * Routes of exposure (inhalation, ingestion, dermal injection), * Dose and toxicity (acute, chronic, concentration), * Exposure limits [permissible exposure limit (PEL), time-weighted average (TWA), threshold limit values (TLV), short term exposure limit (STEL), ceiling, action level, parts per million (PPM), milligrams per cubic meter (mg/m ³)], * Hierarchy of controls (engineering, substitution, administrative, PPE), * Health hazards (chemical, physical, biological), * Key elements of a carcinogen control program, including carcinogenic chemicals and asbestos control.	Familiarity Level
1146-16c-07	Discuss the key elements (exposure assessment and monitoring, engineering controls, respiratory protection, PPE and clothing, housekeeping, labeling, training, medical surveillance, record keeping) of an industrial hygiene program.	Familiarity Level
1146-16e-07	Discuss the key elements of a hazard communication program and the use of material safety data sheets.	Familiarity Level

Course #	Competency Description	Proficiency Level
1146-17a	Discuss the objectives and applicability of the DOE Order 414.1A, including its relationship to 10CFR830.120.	Familiarity Level
1146-17c-07	Discuss how each of the following Orders contributes to a proper conduct of operations environment: * DOE O 231.1A, Environment, Safety, and Health Reporting, * DOE O 433.1A, Maintenance Management Program for DOE Nuclear Facilities, * DOE O 414.1C, Quality Assurance.	Familiarity Level
1146-18d-07	State the different categories of reportable occurrences and discuss each.	Familiarity Level
1146-19a-07	Discuss the objectives and applicability of the DOE quality requirements, including the relationship between 10 CFR 830 Subpart A and DOE O 414.1C, and the relationship between DOE quality requirements and American National Standard ASME NQA-1 for nuclear facility applications.	Familiarity Level
1146-19b-07	Discuss 10 CFR 830.4, ?General Requirements?; 10 CFR 830, Subpart A, ?Quality Assurance Requirements?; and DOE O 414.1C, ?Requirements?; including the Federal responsibilities and the applicability of the requirements to DOE and its contractors.	Familiarity Level
1146-20a-07	Describe the relevant requirements, purpose, interrelationships, and importance of the following regulations and directives: * 10 CFR 830, ?Nuclear Safety Management?, * 29 CFR 1910.120, ?Hazardous Waste Operations and Emergency Response?, * DOE O 151.1C, Comprehensive Emergency Management, * DOE G 151.1-1A, Emergency Management Fundamentals and the Operational Emergency Base Program: Emergency Management Guide, * DOE G 151.1-2, Technical Planning Basis: Emergency Management Guide, * DOE G 151.1-3, Programmatic Elements: Emergency Management Guide, * DOE G 151.1-4, Response Elements: Emergency Management Guide (CONT.)*	Familiarity Level
1146-20aa-07	(CONT.)* DOE G 151.1-5, Biosafety Facilities: Emergency Management Guide.	Familiarity Level
1146-21a-07	Describe the purpose of the USQ process.	Familiarity Level
1146-22h-07	State the general requirements for a DSA and for a preliminary documented safety analysis.	Familiarity Level
1146-24a-07	Discuss the purpose and scope of DOE P 226.1A, Department of Energy Oversight Policy.	Familiarity Level
1150-01a	Discuss the purpose and scope of the Price-Anderson Amendments Act and its applicability to the DOE's QA activities.	Familiarity Level
1150-01f	Referring to DOE Guide 414.1-2, Quality Assurance Management System Guide for use with DOE O 414.1A and 10 CFR 830, Subpart A, discuss the implementation of an effective Quality Assurance Program (QAP).	Familiarity Level
1150-04a	Discuss the applicability, purpose, scope and impact of the above DOE Regulations, Orders, and Standards.	Familiarity Level
1150-04b	Discuss the authorities, roles, and responsibilities of QA personnel with regard to the above documents.	Familiarity Level
1150-08a	Describe the methods used to identify work to be performed and the associated hazards (e.g., FEOSH).	Familiarity Level
1150-08b	Describe the methods for approving work process controls, such as procedures or instructions.	Familiarity Level

Course #	Competency Description	Proficiency Level
1151-02a	Describe the following steam system evolutions and associated precautions: * Pressurization and warm-up of a cold steam system,* Initiation of steam flow in a stagnant, but pressurized steam system,* Isolation of a portion of a steam system,* Pressurization and warm-up of an isolated portion of a steam system,* Isolation and de-pressurization of an in-service steam system	Familiarity Level
1151-02b	Describe condensation-induced water hammer and its potential impact on steam systems.	Familiarity Level
1151-04a	Describe the following pneumatic and hydraulic system evolutions and associated precautions and hazards: * Start-up and shutdown,* Normal operation,* System rupture or leakage	Familiarity Level
1155-11d	State the different categories of reportable occurrences and discuss each.	Familiarity Level
1155-24a	Explain how the above documents apply to the transportation and traffic management operations within the Department of Energy, its sub-contractors and facilities.	Familiarity Level
1156-14a	Discuss the application and impact of OSHA and/or MSHA on Department projects.	Familiarity Level
1156-20a	State the Department's policy and discuss the objectives regarding the protection of the public and the environment from radiation as contained in DOE O 5400.5.	Familiarity Level
1156-20b	Define the following terms: * As low as reasonably achievable (ALARA),* Best available technology (BAT),* Derived concentration guide (DCG),* Absorbed dose,* Collective dose equivalent,* Collective effective dose equivalent,* Committed dose equivalent,* Committed effective dose equivalent,* Deep dose equivalent,* Dose equivalent,* Effective dose equivalent,* Public dose,* Weighting factor,* Quality factor,* Effluent monitoring,* Environmental surveillance,* Protective action guides,* Release of property,* Residual radioactive material,* Settleable solids,* Soil column	Familiarity Level
1156-21a	Discuss the relationship between Comprehensive Environmental Response, Compensation, and Liability Act and DOE O 450.1, General Environmental Protection Program.	Familiarity Level
1156-21b	Describe the requirements, deadlines and update frequency for the following Plans mandated by DOE O 450.1, General Environmental Protection Program: * Environmental Protection Implementation Plan,* Groundwater Protection Management Program,* Long-range Environmental Protection Plan,* Waste Minimization Plan,* Pollution Prevention Program,* Environmental Monitoring Plan,* Pollution Abatement Projects 5-year Plan	Familiarity Level
1156-28a	Discuss the application of the above listed documents to the Department of Energy and its facilities.	Familiarity Level
1156-28b	Define the following terms and their implications for regulation in the Department of Energy: * Source material,* Special nuclear material,* Byproduct material,* Naturally occurring or accelerator-produced radioactive material	Familiarity Level
1156-28c	Describe the major requirements of 10 CFR 834, Radiation Protection of the Public and Environment.	Familiarity Level
1156-28d	Describe the concept of Reportable Quantity and identify that quantity for a given radionuclide.	Familiarity Level

Course #	Competency Description	Proficiency Level
1156-28e	Describe the system for classifying mixed waste and the general requirements for treatment, storage and disposal.	Familiarity Level
1156-28f	Describe the basic monitoring and reporting requirements of radionuclides in National Emissions Standards for Hazardous Air Pollutants and state the dose limit.	Familiarity Level
1156-28g	Describe the basic limits for radionuclides in drinking water and their application to Department operations.	Familiarity Level
1156-28h	Describe the following types of radioactive waste and the associated requirements: * Low-level waste,* High-level waste,* Transuranic waste,* Spent nuclear fuel,* Uranium mine and mill tailings	Familiarity Level
1156-28i	Discuss the potential liabilities of the Department and its contractors inherent in the enforcement of environmental regulations (i.e., compliance orders, enforcement actions, fines and penalties, and provisions for civil suits).	Familiarity Level
1156-31b	Describe the organization, mission, and enforcement authorities of the Environmental Protection Agency (EPA).	Familiarity Level
1156-34a	Discuss the requirements identified in DOE O 435.1, Radioactive Waste Management, for the following types of waste: * Low-level,* High-level,* Transuranic	Familiarity Level
1157-17a	Discuss the application and impact of OSHA and/or MSHA on Department projects.	Familiarity Level
1157-22a	State the Department's policy and discuss the objectives regarding the protection of the public and the environment from radiation as contained in DOE O 5400.5.	Familiarity Level
1157-26b	Describe the following elements of configuration management: * Configuration identification,* Configuration control,* Configuration recording and reporting,* Waivers and deviations	Familiarity Level
1157-28a	Discuss the relationship between Comprehensive Environmental Response, Compensation, and Liability Act and DOE P 450.1, General Environmental Protection Program.	Familiarity Level
1157-36a	Discuss the application of the above listed documents to the Department of Energy and its facilities.	Familiarity Level
1157-42a	Discuss the requirements identified in DOE O 435.1, Radioactive Waste Management, for the following types of waste: * Low-level,* High-level,* Transuranic	Familiarity Level
1159-01c	Define and discuss the following terms: * Mixture,* Solvent,* Solubility,* Solute,* Solution,* Equilibrium,* Density,* Molarity,* Parts per million (ppm),* Acid,* Base,* pOH,* Salt,* pH	Familiarity Level
1159-10a	Discuss the purpose and scope of DOE O 5480.20A.	Familiarity Level
1159-11a	Explain the Department of Energy's role in the oversight of contractor maintenance operations.	Familiarity Level
1159-11b	Explain the intent of DOE Order 433.1, ?Maintenance Management Program for DOE Nuclear Facilities?.	Familiarity Level

Course #	Competency Description	Proficiency Level
1159-12c	Discuss the following elements of the Configuration Management Program: * Design requirements,* Document control,* Change control,* Assessments,* Design reconstitution adjunct,* Material condition and aging adjunct	Familiarity Level
1159-12f	Using the guidance in DOE-STD-1073-93, Guide for Operational Configuration Management Program, discuss the System Engineer concept as it applies to oversight of safety systems. Specifically address the areas of configuration management, assessment of system status and performance, and the technical support for operation and maintenance activities or for Documented Safety Analysis reviews.	Familiarity Level
1159-18a	Discuss the application and impact of OSHA and/or MSHA on Department projects.	Familiarity Level
1159-22a	State the Department's policy and discuss the objectives regarding the protection of the public and the environment from radiation as contained in DOE O 5400.5.	Familiarity Level
1159-22b	Define the following terms: * As low as reasonably achievable (ALARA), * Best available technology (BAT),* Derived concentration guide (DCG),* Absorbed dose,* Collective dose equivalent,* Collective effective dose equivalent,* Committed dose equivalent,* Committed effective dose equivalent,* Deep dose equivalent,* Dose equivalent,* Effective dose equivalent,* Public dose,* Weighting factor,* Quality factor,* Effluent monitoring,* Environmental surveillance,* Protective action guides,* Release of property,* Residual radioactive material,* Settleable solids,* Soil column	Familiarity Level
1159-22g	Assess whether the Environmental Radiological Protection Program is in accordance with DOE O 5400.5, Radiation Protection of the Public and Environment.	Familiarity Level
1159-26a	Describe the purpose and scope of the Price-Anderson Amendment Act.	Familiarity Level
1159-26d	Discuss the requirements associated with the topics below, as they are affected by Rule-making aspect of the Price-Anderson Amendment Act: * Safety Analysis Reports,* Unreviewed Safety Questions,* Quality Assurance Requirements,* Technical Safety Requirements	Familiarity Level
1159-27a	Define the following terms: * Effluent,* Environmental Monitoring,* Environmental Protection Standard,* Effluent Monitoring,* Environmental Surveillance,* Environmental Occurrence,* Pollution Prevention	Familiarity Level
1159-27b	Discuss the Department's policy pertaining to the environmentally safe and sound operation of its facilities.	Familiarity Level
1159-27c	Discuss the requirements for Notification and Reports. Include the following as a minimum: * Office of Management and Budget Circular A-106	Familiarity Level
1159-27d	Discuss the requirements for an Environmental Monitoring Plan.	Familiarity Level
1159-29g	Discuss how the National Pollution Discharge Elimination System applies to and impacts Department waste management programs.	Familiarity Level
1159-37b	Describe the organization, mission, and enforcement authorities of the Environmental Protection Agency (EPA) and applicable state regulatory agencies.	Familiarity Level
1159-40k	Discuss the packaging and transportation requirements for low-level waste.	Familiarity Level

Course #	Competency Description	Proficiency Level
1159-41h	Discuss the packaging and transportation requirements for transuranic waste.	Familiarity Level
1159-42a	Define the term "high-level waste," and list potential sources of high-level waste from operations within the Complex.	Familiarity Level
1159-42b	Define "waste incidental to reprocessing?" and explain how it is managed.	Familiarity Level
1159-42c	Evaluate and determine the requirements for treatment, storage and disposal facility operations.	Familiarity Level
1159-42d	Evaluate and determine the requirements for management of high level waste including mixed high-level and TSCA-regulated waste.	Familiarity Level
1159-42e	Review and evaluate the site Radioactive Waste Management Basis.	Familiarity Level
1159-42f	Evaluate and determine the contingency actions for storage and transfer equipment.	Familiarity Level
1159-42g	Identify when operations must be curtailed.	Familiarity Level
1159-42h	Evaluate and determine the minimum waste acceptance requirements for all high level waste storage, pretreatment, or treatment facilities, operation and activities.	Familiarity Level
1159-42i	Discuss in the waste generation planning, life-cycle planning and waste with no identified path to disposal.	Familiarity Level
1159-42j	Discuss the waste certification program.	Familiarity Level
1159-42k	Review and evaluate the structural integrity program for tanks.	Familiarity Level
1159-42l	Evaluate and determine the areas to be monitored for high-level waste pretreatment, treatment, storage and transportation facilities.	Familiarity Level
1159-42m	Identify the types of data and records required to be retained as permanent records.	Familiarity Level
1159-43a	Discuss the requirements of the Hazardous Materials Transportation Act as they relate to the packaging and transportation of waste.	Familiarity Level
1159-46a	Discuss how Inter-Agency Agreements and Agreements in Principal apply to and impact Department waste management programs.	Familiarity Level
1159-46c	Describe Consent and Compliance Orders and discuss how they apply to and impact Department waste management programs.	Familiarity Level
1159-47a	Describe Notice of Violations and discuss how they apply to and impact Department waste management programs.	Familiarity Level
1159-48f	Discuss how the Pollution Prevention Act applies to and impacts Department waste management programs.	Familiarity Level
1160-01a	Describe purpose, responsibilities, and requirements of DOE orders with respect to occupational safety.	Familiarity Level
1160-01f	Discuss and have a working knowledge of Executive Order 12196 and OSHA	Familiarity Level

Course #	Competency Description	Proficiency Level
1160-01h	Describe the purpose, scope, and application of requirements in the following regulations as they apply to DOE facilities: * 29 CFR 1904, ?Recording and Reporting Occupational Injuries and Illnesses?,* 29 CFR 1910, ?Occupational Safety and Health Regulations?,* 29 CFR 1926, ?Safety and Health Regulations for Construction?,* 29 CFR 1960, ?Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters.?	Familiarity Level
1160-03d	Describe common concerns and associated control measures that must be addressed in the workplace environment (e.g., noise, thermal burn hazards, heat stress, vibration, eye hazards, workplace illumination, and lasers).	Familiarity Level
1160-04e	Identify necessary training required for employees who face a risk of electric shock.	Familiarity Level
1160-04g	Describe first aid procedures for electrical shock.	Familiarity Level
1160-05n	Describe and demonstrate understanding of the Integrated Safety Management approach. Discuss objectives, core functions, and guiding principles approach to systematically integrate safety into management and work practices at all levels.	Familiarity Level
1160-13a	Discuss fire chemistry (i.e., four required elements) and role of this chemistry in fire prevention and protection efforts.	Familiarity Level
1160-13b	Describe workplace and facility inspection procedures necessary to identify fire hazards and assess the status of compliance with applicable regulations.	Familiarity Level
1160-13c	Describe fire protection considerations that must be addressed in the review of proposed or existing processes and operations, and identify appropriate control measures.	Familiarity Level
1160-13d	Discuss need to develop, maintain, and implement work procedures that focus on the prevention of fires and explosions, such as hot-work permits, fire watches, and proper handling and storage of flammable materials.	Familiarity Level
1160-13e	Discuss and assess applicability of fire detection system requirements.	Familiarity Level
1160-13f	Discuss and assess applicability of portable and fixed-fire suppression equipment requirements.	Familiarity Level
1160-13g	Discuss and assess application of requirements related to basic design principles in the National Fire Protection Association 101, Life Safety Code, including emergency egress, evacuation, and other related program elements.	Familiarity Level
1160-13h	Discuss role and purpose of fire protection design considerations including fireproof and fire-resistant structures, firewalls, and fire curtains.	Familiarity Level
1160-13i	Discuss health and safety hazards of currently employed fire suppressant systems.	Familiarity Level
1160-13j	Discuss and have working knowledge of welding safety, including confined spaces.	Familiarity Level
1160-13k	Discuss first aid treatment for various burn types (e.g., electrical, fire, heat, and chemical).	Familiarity Level
1160-13l	Discuss role of fire fighters and their required training.	Familiarity Level

Course #	Competency Description	Proficiency Level
1160-17d	Discuss industrial hygiene fundamentals in terms of the following: * Basic terminology,* Nature, recognition, evaluation and control of hazards,* Necessary elements for implementing and maintaining an effective industrial hygiene program.	Familiarity Level
1161-25a	Discuss the potential impact on mechanical systems at defense nuclear facilities from the following natural hazards: * Flooding,* Wind,* Tornado,* Earthquake and/or other seismic events,* Fire,* Lightning	Familiarity Level
1161-25b	Briefly describe the safety measures and design features commonly used as safeguards against natural hazards.	Familiarity Level
1161-35a	Describe the role of mechanical system personnel in the oversight of Government Owned Contractor Operated facilities.	Familiarity Level
1161-36a	Using different sets of performance data, compare and contrast the data to highlight acceptable and unacceptable work performance.	Familiarity Level
1164-02c	Describe how the seven Guiding Principles in the Integrated Safety Management Policy are used to implement an integrated safety management philosophy.	Familiarity Level
1164-18a	Discuss some of the reasons that the Department maintains the Occurrence Reporting and Processing System (ORPS).	Familiarity Level
1164-18b	Describe the three categories of occurrences that are to be reported.	Familiarity Level
1164-22a	Define the terms ?safeguards? and ?security? as they apply to the Department?s aviation program.	Familiarity Level
1164-22b	Discuss the following and their implications within your program: * Physical security,* Personnel security,* Material control and accountability	Familiarity Level
1165-16a	Discuss some of the reasons that the Department maintains the Occurrence Reporting and Processing System (ORPS).	Familiarity Level
1165-16b	Describe the three categories of occurrences that are to be reported.	Familiarity Level
1165-22a	Define the terms ?safeguards? and ?security? as they apply to the Department?s aviation program.	Familiarity Level
1165-22b	Discuss the following and their implications within your program: * Physical security,* Personnel security,* Material control and accountability	Familiarity Level
1165-25b	Describe how the seven Guiding Principles in the Integrated Safety Management Policy are used to implement an integrated safety management philosophy.	Familiarity Level
1166-11d	List and explain the five core functions set forth in the Safety Management System policy or conduct a review of a work package or D&D plan for Integrated Safety Management implementation.	Familiarity Level
1166-11f	List and explain the seven guiding principles of the Safety Management System policy, including their relationship to the five core functions of the Safety Management System policy.	Familiarity Level
1166-13a	Discuss the application and impact of OSHA on DOE D&D projects.	Familiarity Level
1166-15a	Discuss the purpose of technical safety requirements.	Familiarity Level
1166-24a	Discuss the requirements of the Hazardous Materials Transportation Act as they relate to the packaging and transportation of waste.	Familiarity Level

Course #	Competency Description	Proficiency Level
1166-25a	State the Department's policy and discuss the objectives regarding the protection of the public and the environment from radiation as contained in DOE O 5400.5.	Familiarity Level
1166-26a	Define the following terms: * high-level waste,* low-level waste,* transuranic waste,* mixed waste,* low-specific activity	Familiarity Level
1166-26b	Discuss the waste disposal significance to a D&D project created by generating low-level mixed waste liquids determined to be between 10 to 100 nanocuries.	Familiarity Level
1166-26c	Discuss the Department's performance objectives and performance assessment for disposal of low-level radioactive waste as outlined in DOE M 435.1-1, Radioactive Waste Management.	Familiarity Level
1166-26d	Discuss waste characterization requirements and their relevance to disposal facility waste acceptance criteria and to DOT transportation requirements.	Familiarity Level
1166-31c	Describe the following elements of configuration management: * Configuration identification,* Configuration control,* Configuration recording and reporting,* Waivers and deviations	Familiarity Level
1170-14a-07	Using a cutaway drawing of a simple multi-cell storage battery, identify the following components and discuss their function: * Positive terminal; * Negative terminal; * Electrode; * Cell.	Familiarity Level
1170-14b-07	Describe the hazards associated with storage batteries.	Familiarity Level
1170-14c-07	Define the following terms: * Voltaic cell; * Battery; * Electrode; * Electrolyte; * Specific gravity; * Ampere-hour; * Electrolysis; * Equalizing charge; * Float charge; * Pilot cell.	Familiarity Level
1170-14d-07	Describe the operation of a simple voltaic cell.	Familiarity Level
1170-14e-07	Explain the relationship between specific gravity and state of charge of a lead-acid battery.	Familiarity Level
1170-14f-07	Describe the relationship between total battery voltage and individual cell voltage for a series-connected battery.	Familiarity Level
1170-14g-07	Explain the advantage of connecting a battery in parallel with respect to current-carrying capability.	Familiarity Level
1170-14h-07	Describe the difference between primary and secondary cells with respect to recharge capability.	Familiarity Level
1170-14i-07	State the advantages of each of the following types of batteries: * Carbon-zinc cell; * Alkaline cell; * Nickel-cadmium cell * Edison cell; * Mercury cell.	Familiarity Level
1170-14j-07	Explain how gas generation is minimized for a lead-acid battery and list the steps to prevent hydrogen buildup.	Familiarity Level
1170-14k-07	Explain how heat is generated in a lead-acid battery.	Familiarity Level
1170-14l-07	Describe the various uses of battery banks in DOE facilities.	Familiarity Level
1170-14m-07	Describe how batteries are tested.	Familiarity Level
1170-17e-07	State the different categories of reportable occurrences and discuss each.	Familiarity Level

Course #	Competency Description	Proficiency Level
1170-22c-07	Describe and explain how to conduct electrical work on or near live parts, including, but not limited to, energized electrical work permits (elements and exemptions), shock and arc-flash hazard analyses, arc flash calculation methodology, arc flash reduction techniques, approach boundaries, and associated Personal Protective Equipment (PPE) (NFPA 70E, Article 130; IEEE Std-1584; etc.).	Familiarity Level
1170-27a-07	Define each of the following maintenance-related terms and explain their relationship to each other: * Corrective, * Planned; * Preventive; * Reliability centered; * Predictive.	Familiarity Level
1170-28b-07	Describe and explain training requirements; special precautions relating to electronic equipment, e.g., equipment de-energization; zero-energy checks; prevention of shock; and grounding requirements for maintenance actions.	Familiarity Level
1170-36a-07	Discuss the reasons for performing an USQ determination.	Familiarity Level
1170-38a-07	Mandatory Performance Activity: With the assistance of the cognizant software quality assurance (SQA) subject matter expert, identify how functional requirements and applicability of safety analysis and design computer codes are defined, documented, and controlled relative to modeling and data assumptions, design constraints, sizing and timing conditions, and input/output parameters as described in DOE O 414.1C, Quality Assurance and DOE G 414.1-4, Safety Software Guide for Use with 10 CFR 830, Subpart A, Quality Assurance Requirements, and DOE O 414.1C, Quality Assurance.	Familiarity Level
1170-38d-07	Identify the typical requirements that define functional interfaces between safety software components and the system-level design, as described in DOE O 414.1C, Quality Assurance, and DOE G 414.1-4, Safety Software Guide for Use with 10 CFR 830, Subpart A, Quality Assurance Requirements, and DOE O 414.1C, Quality Assurance.	Familiarity Level
1170-49a-07	Describe the purpose, scope, and application of the requirements detailed in the listed standards and Orders.	Familiarity Level
1170-51a-07	Explain the Department's role in the oversight of contractor maintenance operations.	Familiarity Level
1171-01a	Describe the three primary functions of a physical protection system.	Familiarity Level
1171-01b	Describe the characteristics of an effective physical protection system.	Familiarity Level
1171-01c	Describe the fundamental characteristics of ? Exterior intrusion sensors? Interior intrusion sensors	Familiarity Level
1171-01d	Using a list of exterior and interior sensors, describe the classification that should be assigned to each type of sensor.	Familiarity Level
1171-01e	Describe the types of exterior and interior sensors used within the Department.	Familiarity Level
1171-01f	Describe the components of a comprehensive entry control system.	Familiarity Level
1171-01g	Describe the types of entry control systems used within the Department.	Familiarity Level
1171-01h	Describe the purpose of access delay in a physical protection system.	Familiarity Level
1171-01i	Describe the type of access delay mechanisms used within the Department.	Familiarity Level

Course #	Competency Description	Proficiency Level
1171-01j	Discuss the following terms:? Probability of detection? Delay time	Familiarity Level
1171-01k	Demonstrate the modeling of a physical protection system using an adversary sequence diagram.	Familiarity Level
1171-09a	Discuss the following terms:? Derogatory information? Access authorization? Single scope background investigation? Suspension	Familiarity Level
1171-09b	Discuss the process for screening reports of investigation for initial Q and L access authorizations.	Familiarity Level
1171-09c	Explain the relevance in terms of risk assessment of the clearance criteria in 10 CFR 710, Subpart A, General Criteria and Procedures for Determining Eligibility for Access to Classified Matter or Special Nuclear Material.	Familiarity Level
1171-09d	Explain the purpose of the personnel security interview.	Familiarity Level
1171-13a	Assess Department of Energy (DOE) or contractor strategies for maintaining the minimum number of access authorizations consistent with operational efficiency.	Familiarity Level
1171-14a	Using a list of nuclear materials, identify the classification (special nuclearmaterial, source, or other) of the material.	Familiarity Level
1171-14b	Describe the categories of nuclear materials within the DOE.	Familiarity Level
1171-14c	Describe the attractiveness levels of nuclear materials within the DOE.	Familiarity Level
1171-23a	Describe the classification levels and categories.	Familiarity Level
1171-23b	Describe the function of the following information security programs:? Classified Matter Protection Control? Operations Security? Technical Surveillance Countermeasures? Automated Information Systems Security? Sensitive Unclassified Inform, Sensitive Compartmented Information and Foreign Intelligence Information+ Special Access Programs	Familiarity Level
1171-23c	Discuss the Department's counterintelligence program and its relationship to the information security program.	Familiarity Level
1171-33a	Define the terms safeguards and security as they apply to the DOE. Provide examples of each.	Familiarity Level
1171-33d	Describe the objective of Integrated Safeguards and Security Management (ISSM).	Familiarity Level
1171-46d	Safeguards and security personnel should have an understanding of the safety basis documents (such as Documented Safety Analysis, Safety Analyses Reports, Hazard Analysis Reports, and Fire Hazard Analysis).	Familiarity Level
1172-02a	Identify how system-level requirements are established and then assigned to hardware, software, and human components of a digital instrumentation and control system.	Familiarity Level
1172-02b	Identify the typical requirements that define functional interfaces between safety system software components and the system-level design, as described in standards such as ANSI/IEEE 830, IEEE Guide to Software Requirements Specifications and IEEE 7-4.3.2, Standard Criteria for Digital Computers in Safety Systems of Nuclear Power Generating Stations.	Familiarity Level

Course #	Competency Description	Proficiency Level
1172-03a	Identify how functional requirements and applicability of safety analysis and design computer codes are defined, documented, and controlled relative to modeling and data assumptions, design constraints, sizing and timing conditions, and input/output parameters.	Familiarity Level
1172-05a	Explain how software requirements specifications (SRS) are developed and used. Include in your explanation the essential role of SRS in the overall argument that software is safe.	Familiarity Level
1172-07a	Discuss the following concepts as they relate to safety software coding: * Development environment,* Target environments and reusable components,* Data structure,* Logic structure,* Embedded comments	Familiarity Level
1172-07b	Discuss the following documents and describe how each supports safety software coding: * Design Specifications,* Program Specifications,* Programming Standards,* System Design Document,* Programmers Manual,* Users Manual	Familiarity Level
1172-08a	Describe the following processes and documents as they relate to safety software quality: * Verification of requirements,* Verification of design,* Verification of source code,* Unit testing,* Integration and system testing,* Verification and validation plan,* Verification and validation reports,* Verification and validation of tools,* Distinction between verification and validation activities,* Independent verification and validation	Familiarity Level
1172-08b	Describe methods for reviewing a verification and validation program.	Familiarity Level
1172-08c	Explain the differences in the verification and validation processes between custom and COTS safety software.	Familiarity Level
1172-08d	Explain the differences in the verification and validation processes between safety system software and firmware vs. safety analysis and design software.	Familiarity Level
1172-08e	Describe the controls used to assure that calculations performed using spreadsheets and other calculation programs are accurate. Identify the records that should be maintained to document the calculation process.	Familiarity Level
1172-08f	Conduct or review an assessment of the verification and validation processes applied to a software development project and/or to a program in the operation and maintenance life cycle phase. Describe the strengths and weaknesses you identify.	Familiarity Level
1173-06f	Differentiate between the function and contents of the following documents: * Safety Analysis Report (SAR),* Technical Safety Requirements (TSR),* Documented Safety Analysis (DSA),* Unreviewed Safety Question Determination (USQD)	Familiarity Level
1173-07b	Identify and discuss the methods used to determine and analyze failure modes.	Familiarity Level
1173-14d	State the different categories of reportable occurrences and discuss each.	Familiarity Level
1173-15b	Define the following terms: * Accident analyses,* Safety analysis,* Technical Safety Requirements	Familiarity Level
1173-16a	Discuss the purpose of Technical Safety Requirements.	Familiarity Level
1173-17a	Discuss the four basic purposes and objectives of Documented Safety Analysis.	Familiarity Level

Course #	Competency Description	Proficiency Level
1173-22a	Describe the contents, requirements, and relationship between the above Orders, Technical Standards, and Secretary of Energy Notice.	Familiarity Level
1173-23a	Describe the purpose and scope of the Price-Anderson Amendment Act.	Familiarity Level
1173-23e	Discuss the role of Department Criticality safety personnel with respect to implementing the requirements of the Price-Anderson Amendment Act in accordance with the following: * 10 CFR 820, Procedural Rules for DOE Nuclear Activities,* 10 CFR 830, Nuclear Safety Management,* 10 CFR 835, Occupational Radiation Protection,* DOE STD-1083, Requesting and Granting Exemptions to Nuclear Safety Rules,* Office of Enforcement and Investigation procedure "Enforcement of DOE Nuclear Safety Requirements under Price-Anderson Amendments Act of 1988" (CONT.)	Familiarity Level
1173-23ee	*(CONT.) Office of Enforcement and Investigation procedure "Identifying, Reporting, and Tracking Nuclear Safety Noncompliance under Price-Anderson Amendments Act of 1988"	Familiarity Level
1174-10a	Discuss the relationship of the above documents in defining the DOE system of radiation protection.	Familiarity Level
1174-11a	Describe the relevant requirements, interrelationships and importance of the listed Orders, notices, codes, and regulations, guides, technical manual(s).	Familiarity Level
1174-12a	Describe the purpose and scope of the Price-Anderson Amendment Act.	Familiarity Level
1174-12c	Discuss the purpose and scope of the current nuclear safety rules including: * 10 CFR 708, DOE Contractor Employee Protection Program,* 10 CFR 820, Procedural Rules for DOE Nuclear Activities,* 10 CFR 830, Nuclear Safety Management	Familiarity Level
1174-16a	Describe in general the training and qualification requirements for contractors specified in DOE Order 5480.20A, Ch. 1, Personnel Selection, Qualification and Training Requirements for DOE Nuclear Facilities.	Familiarity Level
1174-18a	Familiarity with the DOE policy and requirements regarding the management, control, and release of property containing residual radioactivity, as contained in: * DOE/EH-413-0002, Facility Disposition: Principles for Accelerated Project Management,* DOE Order 5400.5, Ch. 2, Radiation Protection of the Public and the Environment,* DOE-STD-1120-98, Integration of Environment, Safety and Health into Facility Disposition Activities	Familiarity Level
1174-19a	Discuss the purpose and scope of the DOE Order 460.1B, Packaging and Transportation Safety.	Familiarity Level
1175-02a	Discuss planning, recruitment, and selection processes that can be used to acquire a technically competent workforce with the necessary knowledge, skills, abilities, and/or potential to accomplish the goals of the organization.	Familiarity Level
1175-02f	Describe in general the training and qualification requirements for contractors specified in DOE O 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities.	Familiarity Level
1175-04a	Discuss the purpose and objectives of the nuclear facility safety basis program.	Familiarity Level
1175-05a	Discuss the interrelationship between the following:,*Environmental law,* Statutory construction ,*The United States Code,*The CFRs ,*State Laws and Regulations	Familiarity Level

Course #	Competency Description	Proficiency Level
1175-05b	Describe the organization, mission, and enforcement authorities of the Environmental Protection Agency (EPA).	Familiarity Level
1175-05c	Discuss the applicability and timing for National Environmental Policy Act documentation and the role of the Department and contractor in implementation.	Familiarity Level
1175-06b	Describe the organization, mission and enforcement authorities of the Occupational Safety and Health Administration (OSHA).	Familiarity Level
1175-06d	Describe the role(s) the contractor plays in implementing occupational safety and health regulations.	Familiarity Level
1175-06f	Describe the responsibilities of the following in implementing DOE O 442.1A, Department of Energy Employee Concerns Program:,* Headquarters and Field Office Managers,* Employee Concerns Manager	Familiarity Level
1175-06g	Describe how employee concerns are reported, processed, and documented as stated in DOE O 442.1A and the DOE G 442.1-1, Department of Energy Employee Concerns Program Guide.	Familiarity Level
1175-07a	Discuss the Department's three-tiered organizational approach to managing Operational Emergencies.	Familiarity Level
1175-07b	Discuss the general roles and responsibilities of the Departmental elements for management of the Department's Emergency Management System as defined in DOE O 151.1B, Comprehensive Emergency Management System.	Familiarity Level
1175-07f	Discuss the involvement of external agencies in the Department's emergency management system.	Familiarity Level
1175-08b	Discuss the requirements for implementing conduct of operations at DOE facilities and the associated impact on safety and efficiency of operations.	Familiarity Level
1175-08c	Discuss the purpose and describe the roles and responsibilities of the STSM in implementing DOE O 5480.19, Conduct of Operations Requirements for DOE Facilities.	Familiarity Level
1175-09c	Discuss the Department's performance objectives and performance assessment requirements as outlined in DOE O 435.1.	Familiarity Level
1175-09d	Discuss the Department's policies on waste management including:,*Generation reduction,*Segregation,*Minimization,*Pollution prevention,*Disposal	Familiarity Level
1175-09e	Discuss the Department's policies on waste management including:,*Generation reduction,*Segregation,*Minimization,*Pollution prevention,*Disposal	Familiarity Level
1175-09f	Discuss the general requirements of the Resource Conservation and Recovery Act as it applies to hazardous and mixed waste.	Familiarity Level
1175-10c	Discuss the graded approach process by which Department line management determines an appropriate level of coverage by facility maintenance management personnel.	Familiarity Level
1175-11b	Discuss the concept of configuration management and its importance in ensuring operational safety.	Familiarity Level

Course #	Competency Description	Proficiency Level
1175-11c	For the elements identified above, describe the possible effects on safe operations if they are ineffectively implemented.	Familiarity Level
1175-11i-06	Describe the general requirements and issues associated with the transportation and packaging of radioactive wastes.	Familiarity Level
1175-12a	Define the terms "safeguards" and "security" as they apply to the DOE Safeguards and Security Program.	Familiarity Level
1175-13b	Discuss the DOE Order development and approval process.	Familiarity Level
1175-13f	Discuss the difference between a DOE Order and a Rule including enforcement and implementation differences.	Familiarity Level
1175-14a	Describe the purpose and scope of the PAAA.	Familiarity Level
1175-14c	Discuss the civil and criminal penalties imposed on the Department, contractors, and subcontractors as the result of a violation of applicable rules and regulations related to nuclear safety.	Familiarity Level
1175-15a	Discuss the enabling legislation and the purpose of the DNFSB.	Familiarity Level
1175-15h-06	Demonstrate an understanding of Public Law 104-113 regarding the use of industry consensus standards.	Familiarity Level
1175-16d	Describe the following types of accident investigations and discuss an example of the application of each: "Type A," "Type B"	Familiarity Level
1175-17a	Identify the three major DOE contract types and describe the characteristics, and the advantages and disadvantages of each.	Familiarity Level
1175-17b	Identify and discuss the types of contracting processes that are used to put major contracts in place.	Familiarity Level
1175-17c	Discuss the following terms as they apply to financial accountability for the contractor: "Incentives," "Fines and Penalties," "Third-Party Liabilities," "Loss of, or damage to, Government property," "Allowable and Non-Allowable Costs"	Familiarity Level
1175-18m	Discuss the responsibilities, authorities, and implementation requirements for DOE O 430.1B, Real Property Asset Management, at defense nuclear facilities.	Familiarity Level
1175-21e-06	Discuss the role of STSMs with respect to DOE O 414.1C, 10 CFR 830, Nuclear Safety Management and 10 CFR 830 Subpart A, Quality Assurance.	Familiarity Level
1175-21f-06	Describe the 10 quality assurance criteria of DOE O 414.1C and 10 CFR 830 Subpart A which address the following: * Management, * Performance, * Assessment.	Familiarity Level
1175-21g-06	Referring to the following DOE Guides supporting DOE O 414.1C and 10 CFR 830 Subpart A, discuss the implementation of an effective QAP. * DOE G 414.1-1A, Management and Independent Assessment Guide, * DOE G 414.1-2A, Quality Assurance Management System Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements, and DOE O 414.1C, Quality Assurance, * DOE G 414.1-3, Suspect/Counterfeit Items Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements, and DOE O 414.1B, Quality Assurance, * DOE G 414.1-4, Safety Software Guide for Use with 10 CFR 830, Subpart A, Quality Assurance Requirements, and DOE O 414.1C, Quality Assurance.	Familiarity Level

Course #	Competency Description	Proficiency Level
1175-21h-06	Describe the scope, purpose, and application of the safety software quality assurance requirements and work practices.	Familiarity Level
1175-22f-06	Discuss the requirements delineated in DOE Order 5400.5, Radiation Protection of the Public and the Environment.	Familiarity Level
1176-05a	Discuss the following aspects of 10 CFR 830 subpart B: * Documented Safety Analyses,* Technical Safety Requirements,* Unreviewed Safety Question,* Safe Harbor Methodology,* DOE-STD 1027, Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports,* DOE-STD 3009, Preparation Guide for US Department of Energy Nonreactor Nuclear Facility Documented Safety Analyses	Familiarity Level
1177-01a	Explain the roles and responsibilities of each of the following disciplines to emergency management: * Integrated Safety Management,* Health Physics,* Environmental Transport & Diffusion (air and water),* Industrial Hygiene,* Chemistry,* Biology,* Worker and Public Health & Safety,* Hazardous Material (storage, handling, & transport),* Criticality Safety,* Explosives Safety,* Environmental Protection,* Detection & Monitoring (radiological and non-radiological),* Consequence Assessment (models & codes),* Protective Measures (personal protective equipment, sheltering, decontamination, evacuation, & relocation) (CONT.)	Familiarity Level
1177-01aa	(*CONT) * Fire Protection/Fire Suppression Operations,* Operations & Maintenance,* Security,* Law Enforcement* Medical,* Public Affairs,* Legal	Familiarity Level
1177-05a	Discuss the concept of Emergency Public Information and the role of the Joint Information Center in disseminating information to the Public in an emergency.	Familiarity Level
1177-05b	Discuss the use and implementation of Memorandums of Agreement/Understanding with off-site agencies and the effect on emergency planning and response.	Familiarity Level
1177-10a	Describe the typical content and applicability of each of the emergency plans listed above.	Familiarity Level
1177-12c	Define "Operational Emergencies" and the circumstances to which they apply.	Familiarity Level
1178-03d	State the different categories of reportable occurrences and discuss each.	Familiarity Level
1178-04a	Discuss the four basic purposes and objectives of Documented Safety Analysis.	Familiarity Level
1178-05a	Discuss the reasons for performing an USQ determination.	Familiarity Level
1178-07a	Describe the purpose and scope of the PAAA.	Familiarity Level
1178-07d	Discuss the general requirements associated with the topics below, as they are affected by the following rule-making aspects of PAAA: * Occupational Radiation Safety,* Safety Analysis Reports,* Unreviewed Safety Questions,* Quality Assurance Requirements,* Conduct of Operations at DOE Nuclear Facilities,* Technical Safety Requirements,* Occurrences at DOE Nuclear Facilities.	Familiarity Level
1178-08b	Discuss the concept of configuration management and its importance in ensuring operational safety.	Familiarity Level

Course #	Competency Description	Proficiency Level
1178-08f	Discuss each of the following elements of configuration management and how they contribute to safety and an effective configuration management program; * Program Management,* Document Control,* Change Control,* Graded Approach,* Design Requirements,* Assessments	Familiarity Level
1178-09f	Referring to DOE Guide 414.1-2, Quality Assurance Management System Guide for use with 10 CFR 830.120, Subpart A, Quality Assurance, and DOE O 414.1 discuss the implementation of an effective Quality Assurance Program (QAP). Conduct a QA assessment of an ongoing project or work activity, and then review the results with a qualified QA individual.	Familiarity Level
1178-22a	As described in DOE Manual 426.1-1, Federal Technical Capability Manual, discuss planning, recruitment, and selection processes that can be used to acquire a technically competent workforce with the necessary knowledge, skills, abilities, and/or potential to accomplish the goals of the organization. Discuss the roles and responsibilities of the Federal Technical Capability Panel and Panel Agents in the recruitment, selection, training, and retention of technical personnel. Describe the following three types of mentoring relationships and discuss the types of goals that an organizationally sponsored mentoring program is intended to meet : * Supervisor (CONT.)	Familiarity Level
1178-22aa	(*CONT.) * Informal,* Structured-Facilitated	Familiarity Level
1178-22e	Describe in general the training and qualification requirements for contractors specified in DOE Order 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities.	Familiarity Level
1179-11a	Describe how the Guiding Principles in the ISM Policy are used to implement an ISM philosophy in Headquarters and Field Element technical training activities.	Familiarity Level
1179-14a	Referring to the following sample of orders and rules, describe the purpose, applicability, and roles and responsibilities as they pertain to oversight of contractor training and qualification programs,* 10 CFR 820, Procedural Rules for DOE Nuclear Activities,* 10 CFR 830, Nuclear Safety Management,* 10 CFR 835, Occupational Radiation Protection,* DOE Order 5480.19, Conduct of Operations Requirements for DOE Facilities,* DOE Order 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities,* DOE O 151.1B, Comprehensive Emergency Management System,* DOE O 350.1, Contractor Human Resource Management Programs (CONT.)	Familiarity Level
1179-14aa	(*CONT.) DOE O 414.1A, Chg 1, Quality Assurance,* DOE O 425.1C, Start-up and Restart of Nuclear Facilities,* DOE O 430.1B, Real Property Asset Management	Familiarity Level
1180-28b	Describe the situations that require implementation of the USQ process.	Familiarity Level
1180-29a	Describe the purpose, scope, and application of requirements detailed in the above documents.	Familiarity Level
1181-16a	Explain the Department of Energy's role in the oversight of contractor maintenance operations.	Familiarity Level
1181-16d	Describe responsibilities and authorities for maintenance management programs.	Familiarity Level
1181-17a	Discuss the meaning of qualification and its importance to maintenance personnel.	Familiarity Level

Course #	Competency Description	Proficiency Level
1181-17b	Describe the purpose and scope of DOE Order 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities.	Familiarity Level
1181-17c	Discuss why certain skills or proficiencies should be demonstrated periodically by maintenance personnel.	Familiarity Level
1181-17d	Using DOE Order 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities as a reference, describe the general requirements to which a Management and Operating (M&O) contractor is held at Category 1, 2, and 3 facilities in the following areas: * Qualification and certification of maintenance personnel,* Training and qualification of sub-contractors,* Continuing training and requalification of maintenance personnel,* Exceptions and alternatives to requirements of DOE Order 5480.20A for maintenance personnel,* Maintenance Personnel selection	Familiarity Level
1181-17e	Using DOE Order 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities as a reference, state the entry level requirements for various facility positions.	Familiarity Level
1181-17f	Describe the purpose and scope of Chapter II, Section 3, of DOE Order 433.1, Training and Qualification of Maintenance Personnel.	Familiarity Level
1181-17g	Discuss the responsibility of the maintenance organization in the training and qualification of their personnel.	Familiarity Level
1181-17h	Discuss the requirements of Chapter II, Section 3, DOE Order 433.1, Training and Qualification of Maintenance Personnel, regarding training facilities.	Familiarity Level
1181-17i	Describe the elements of an effective on-the-job training program.	Familiarity Level
1181-17j	Discuss the maintenance manager's responsibilities in the approval, effectiveness, and feedback cycles of the maintenance training program.	Familiarity Level
1181-18a	Describe the purpose, scope, and application of the requirements detailed in the Orders above listed.	Familiarity Level
1181-19a	Describe the purpose, scope, and application of the requirements detailed in the Technical Standards listed above.	Familiarity Level
1181-20d	State the different categories of reportable occurrences and discuss each.	Familiarity Level
1181-23a	Discuss the purpose of the Technical Safety Requirements.	Familiarity Level
1181-23d	Describe the general content of each of the following sections of the Technical Safety Requirements: * Use and application,* Safety limits,* Operating limits,* Surveillance requirements,* Administrative controls,* Basis,* Design features	Familiarity Level
1181-29d	Discuss the recordkeeping requirements of DOE Order 433.1, Maintenance Management Program for DOE Nuclear Facilities.	Familiarity Level
1181-33a	Describe the structures, systems, and components included in a maintenance management program.	Familiarity Level
1181-33b	Discuss line management's responsibilities for the maintenance management program.	Familiarity Level
1181-33c	Define the term "graded approach" and discuss its application to a maintenance management program.	Familiarity Level

Course #	Competency Description	Proficiency Level
1181-33d	Discuss the application of Technical Safety Requirements in a maintenance management program.	Familiarity Level
1181-33e	Discuss the management systems that control maintenance activities.	Familiarity Level
1181-33f	Describe the mechanisms for feedback of relevant information, such as trend analysis and instrumentation performance/reliability data, to identify necessary program modifications.	Familiarity Level
1181-33g	Discuss the role of configuration management as it relates to maintenance management.	Familiarity Level
1182-07b	Discuss the contents of the listed Safety Authorization Basis documents/processes and explain their relationship to each other: * Documented Safety Analysis (DSA),* Technical Safety Requirements (TSR),* Unreviewed Safety Question (USQ) process,* Safety Evaluation Report (SER)	Familiarity Level
1182-11d	Discuss the applicability of reports/recommendations from external entities such as the Defense Nuclear Facilities Safety Board (DNFSB) or the Government Accounting Office (GAO) and any resulting implementation plans that affect the Civil/Structural Engineering programs.	Familiarity Level
1183-15a	Discuss the purpose, principles of detection and operation and field application of the following: * Continuous air monitors (CAM) including tritium alarms,* Area radiation monitors (ARM),* Criticality detection/alarm systems,* Process radiation monitors	Familiarity Level
1183-20a	Describe when a contractor must establish a safety basis for a facility.	Familiarity Level
1183-24a	Identify how system-level requirements are established and then assigned to hardware, software, and human components of a digital instrumentation and control system.	Familiarity Level
1183-25a	Identify how functional requirements and applicability of safety analysis and design computer codes are defined, documented, and controlled relative to modeling and data assumptions, design constraints, sizing and timing conditions and input/output parameters.	Familiarity Level
1183-31a	Identify and discuss aspects of person-machine interface that can degrade or enhance the safety performance of personnel.	Familiarity Level
1183-34a	Describe and explain the application of problem analysis techniques including the following: * Root cause analysis,* Causal factor analysis,* Change analysis,* Barrier analysis,* Management oversight risk tree analysis	Familiarity Level
1183-34b	Describe the following types of investigations and discuss an example of the application of each: * Type A,* Type B	Familiarity Level
1185-21a	Describe the composition requirements for an NESSG.	Familiarity Level
1185-21b	Describe the scope of the NESSG responsibilities.	Familiarity Level
1185-27a	Discuss the purpose of DOE O 5480.19, Conduct of Operations Requirements for DOE Facilities.	Familiarity Level
1185-28a	Discuss the conceptual basis and process for preparation of a facility/activity Documented Safety Analysis.	Familiarity Level

Course #	Competency Description	Proficiency Level
1185-31a	Discuss the following terms as they relate to HRP: * Nuclear explosive duty.* HRP certification,* Temporary removal	Familiarity Level
1185-31b	Discuss the relationship between HRP certification and other job qualification requirements.	Familiarity Level
1185-31c	Identify the prerequisites for HRP certification and describe the HRP certification process.	Familiarity Level
1185-31d	Discuss the responsibilities of HRP-certified personnel and their supervisors.	Familiarity Level
1185-35a	Discuss the purpose of Technical Safety Requirements.	Familiarity Level
SAF-111 Electrical Systems and Safety Awareness		
1146-00b-00	Safety Courses in Analysis	Familiarity Level
SAF-131V Principles of Effective Assessment and Evaluation		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-133V Human Performance Fundamentals		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-134V Evaluator Training		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-220 Senior Technical Safety Manager Overview		
1175-01a-06	Discuss the means of developing and/or enhancing alliances with external groups (e.g., other agencies and governments, U.S. Congress, and clientele groups).	Demonstrate the ability
1175-01b-06	Represent and speak for the organizational unit on safety management issues (e.g., presenting, explaining, selling, defending, and negotiating) to those inside and outside the Department.	Demonstrate the ability
1175-01c-06	Discuss the benefits to safety management of promoting effective communication and exchange across the Department including: * Focused sharing of information, * Interaction and resolution of issues, * Use of lessons learned	Demonstrate the ability
1175-01d-06	Describe how the following expectations are effectively communicated within an organization to build a continuous improvement culture: * Development and exploration of new ideas are encouraged, * Process quality and safety responsibilities within the organization are understood, * Individuals know how their work contributes to safety objectives and strategic goals, * Unsafe practices, nonconforming items and potential areas for improvement are readily identified, * Enhanced product and process safety and reliability are emphasized.	Demonstrate the ability
1175-02a-06	Discuss planning, recruitment, and selection processes that can be used to acquire a technically competent workforce with the necessary knowledge, skills, abilities, and/or potential to accomplish the goals of the organization.	Working Level

Course #	Competency Description	Proficiency Level
1175-02b-06	Discuss the parameters of the Excepted Service Authority (ies), the circumstances which would dictate use of an Excepted Service Authority, and the process and procedures for using an Excepted Service Authority to recruit and hire.	Working Level
1175-02c-06	Discuss ways to motivate, reward, recognize, and retain excellent employees or recognize a major contribution to the organization using local rewards programs or programs described in the Departmental Administrative Flexibilities guide.	Working Level
1175-02d-06	Discuss the roles and responsibilities of the FTCP Panel and Panel Agents in the recruitment, selection, training, and retention of technical personnel.	Working Level
1175-02e-06	Describe methods used to assess an employee's unique developmental needs and why providing developmental opportunities to employees could contribute to the achievement of organizational goals.	Working Level
1175-02f-06	Describe in general, the training and qualification requirements for contractors specified in DOE O 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities.	Working Level
1175-02g-06	Discuss the responsibilities of DOE elements in meeting the requirements for the Technical Qualification Program as described in DOE M 360.1-1B.	Working Level
1175-02h-06	Describe the Federal Technical Capability Program as defined in DOE M 426.1-1A, Federal Technical Capability Manual, and discuss that application of the program in your organization.	Working Level
1175-02k-06	Describe the process to obtain technical assistance and the types of assets available.	Working Level
1175-02l-06	Describe the process for enrolling or participating in the Department's technical assistance units.	Working Level
1175-02m-06	Describe the process for obtaining the technical assistance of an individual from another office on a temporary or detail basis.	Working Level
1175-02n-06	Describe other Departmental capabilities/resources that could be utilized to solve short-term technical safety issues.	Working Level
1175-03a-06	Compare, contrast, and describe organizational culture, safety culture, and safety conscious work environment as they relate to nuclear missions in DOE.	Working Level
1175-03b-06	Identify and discuss the safety culture lessons learned from the Columbia Space Shuttle Accident and their applicability to DOE.	Working Level
1175-03c-06	Identify and discuss the safety culture lessons learned from the Davis-Besse Reactor Vessel Head Degradation Incident and their applicability to DOE.	Working Level
1175-03d-06	Given a scenario, analyze, identify, and describe potential signs of a strong or weak safety culture within an organization.	Working Level
1175-03e-06	Explain how INPO Safety Culture Principles are applied for a given organization and its associated mission in DOE.	Working Level
1175-04a-06	Describe the overall objective of the Department-wide DOE M 411.1-1C, Safety Management Functions, Responsibilities, and Authorities Manual and the similar lower-tier organization-level manuals developed by Headquarters Offices and Field elements.	Working Level

Course #	Competency Description	Proficiency Level
1175-04b-06	Give an example of a circumstance that might make it necessary or reasonable to deviate from the responsibilities and authorities identified in the Functions, Responsibilities, and Authorities Manual and describe the exemption process in DOE M 251.1-1A, Directives System Manual.	Working Level
1175-04c-06	Discuss in detail the requirements contained in Department of Energy Acquisition Regulations (DEAR) Clauses 970.5223-1, Integration of Environment, Safety and Health into work planning and execution, DEAR 970.5204-2, Laws, Regulations and DOE Directives, and DEAR 970.5215-3, Conditional Payment of Fee.	Working Level
1175-05a-06	Explain the significance of human error in the incidences of occurrences and events.	Working Level
1175-05b-06	Name three of the five principles of human performance and provide a workplace example of each principle in action.	Working Level
1175-05c-06	Explain how individual behavior affects the frequency and severity of an occurrence or an event.	Working Level
1175-06a-06	Discuss the purpose and objectives of the nuclear facility safety basis program.	Working Level
1175-06c-06	Discuss the development and maintenance of the requirements described in 10 CFR 830, Subpart B, Safety Basis Requirements, for DOE and contractors authorized to operate nuclear facilities.	Working Level
1175-06d-06	Discuss the following items in the context of safe operation of a nuclear facility: * Authorization Agreements, * Authorization Basis, * Documented Safety Analysis, * Fire Hazard Analysis, * Graded approach, * Limiting conditions for operation, * Limiting control setting, * Operational Readiness Review, * Preliminary Documented Safety Analysis, * Potential Inadequacies of the Safety Analysis (PISA), * Readiness Assessment, * Safety Significant Components (SSCs), * Safe Harbor Methodologies, * Safety Analysis Report for Packaging, * Safety Basis, * Safety Class SSCs, * Safety Evaluation Report, * Safety limit, * Safety significant SSCs (CONT.)	Working Level
1175-06e-06	Describe how the TSR is derived, how it is used, and what constitutes a violation.	Working Level
1175-06f-06	Discuss the hazard categorization levels, chemical hazard classification levels, and the process utilized to determine the facility hazard category or classification.	Working Level
1175-06g-06	Discuss the reasons for performing a USQ determination.	Working Level
1175-06h-06	Discuss the responsibilities of DOE and contractors authorized to operate nuclear facilities for the performance of USQ determinations.	Working Level
1175-06i-06	Discuss the actions to be taken by a contractor and DOE upon identifying information that indicates a potential inadequacy of the safety analysis.	Working Level
1175-06j-06	Discuss the actions to be taken by a contractor and DOE if it is determined that a PISA exists.	Working Level

Course #	Competency Description	Proficiency Level
1175-06k-06	Describe the safety basis documents for the facilities in the STSM's organization and how they are prepared, reviewed, approved, and updated: * The safety basis documents for the facilities under the purview of the STSM's organization, * The scope of operations, hazards, postulated accidents, and controls/requirements for the assigned facilities as documented in the safety basis documents, * The safety basis documentation preparation, revision, and update processes and the associated responsibilities of the contractor and DOE, * The review and approval processes for safety basis documents and the associated responsibilities of the contractor and DOE (CONT.)	Working Level
1175-06kk-06	* (CONT.) The level of approval authority as it relates to Facility Hazard Categorization and Classification and safety basis documents, * The steps in the preparation, review, and approval of a safety evaluation report, * The process for flow down of controls and requirements and the derived operating procedures, processes, and programs, * Identify the conditions and procedures used to maintain and modify safety documents.	Working Level
1175-07a-06	Demonstrate awareness of sources of environmental rules, such as Federal and state statutes, regulations, and DOE orders.	Working Level
1175-07b-06	Describe the organization, and mission, and enforcement authorities of the U.S. Environmental Protection Agency (EPA).	Working Level
1175-07c-06	Discuss the National Environmental Policy Act process and the role of the Department and its contractors in implementation.	Working Level
1175-07d-06	Describe the role(s) of a DOE contractor with respect to compliance with environmental laws and regulations, and discuss the responsibilities of the Federal staff employees for management and oversight of the DOE contractor for such compliance.	Working Level
1175-07e-06	Demonstrate awareness that environmental requirements are enforceable criminally and civilly.	Working Level
1175-07f-06	Discuss ISO 14001, Environmental Management Systems Standards, and their relevance to DOE and contractor performance.	Working Level
1175-07g-06	Discuss DOE O 450.1 and the requirements for DOE sites to implement Environmental Management Systems as part of the Integrated Safety Management System (ISMS), including goals for pollution prevention and sustainable environmental stewardship.	Working Level
1175-07h-06	Describe the role(s) the contractor plays in compliance with environmental regulations.	Working Level
1175-08a-06	Demonstrate awareness of sources of occupational safety and health rules, such as Federal and state statutes, regulations, and orders (e.g., DOE O 440.1A, Worker Protection Management for DOE Federal and Contractor Employees, and 10 CFR 851, Worker Safety and Health Program).	Working Level
1175-08b-06	Describe how the ISM core functions and principles and the quality assurance (QA) criteria are integrated into the activity-level work planning and control processes for protection of the workers at a given facility or site.	Working Level
1175-08c-06	Describe the organization, and mission and enforcement authorities of the Occupational Safety and Health Administration (OSHA) and interface with the Atomic Energy Act through MOU's and 10 CFR851.	Working Level

Course #	Competency Description	Proficiency Level
1175-08d-06	Demonstrate awareness that occupational safety and health requirements are enforceable criminally and civilly.	Working Level
1175-08e-06	Describe the role(s) the contractor plays in implementing occupational safety and health regulations.	Working Level
1175-08f-06	Describe the purpose, scope, and importance of the Department's Employee Concerns Program.	Working Level
1175-08g-06	Describe the responsibilities of the following in implementing DOE O 442.1A, Department of Energy Employee Concerns Program: * Headquarters and Field Office Managers, * Employee Concerns Manager.	Working Level
1175-08h-06	Describe how employee concerns are reported, processed, and documented as stated in DOE O 442.1A and the DOE G 442.1-1, Department of Energy Employee Concerns Program Guide.	Working Level
1175-08i-06	Describe the criteria for designating and processing occupational health and safety concerns.	Working Level
1175-09a-06	Discuss the Department's three-tiered organizational approach to managing Operational Emergencies.	Working Level
1175-09b-06	Discuss the roles and responsibilities of the Departmental elements for management of the Department's Emergency Management System as defined in DOE O 151.1C, Comprehensive Emergency Management System.	Working Level
1175-09c-06	Define "Operational Emergencies" and the circumstances to which they apply as defined in DOE O 151.1C, Comprehensive Emergency Management System.	Working Level
1175-09d-06	Discuss the concept of Emergency Public Information and the different roles of the Department's Public Relations Office and the Joint Information Center in disseminating information in an emergency.	Working Level
1175-09e-06	Discuss the involvement of external agencies in the Department's Emergency Management System.	Working Level
1175-09f-06	Describe the contents, the requirements for, and where each of the following types of emergency plans can be located on-site: * Site Emergency Plan, * Facility Emergency Plan, * Building Emergency Plan, * Security Emergency Plan, * Fire Prevention/ Suppression Plan, * Worker Safety Plan(s), * Continuity of Operations Plan.	Working Level
1175-10a-06	Describe the reason for implementing conduct of operations at DOE facilities.	Working Level
1175-10b-06	Discuss the requirements for implementing conduct of operations at DOE facilities and the associated impact on safety and efficiency of operations.	Working Level
1175-10c-06	Discuss the purpose and describe the roles and responsibilities of the STSM in implementing DOE O 5480.19, Conduct of Operations Requirements for DOE Facilities.	Working Level
1175-10d-06	Discuss the concept of "graded approach" and how it applies to the implementation of conduct of operations.	Working Level
1175-10e-06	For each of the 18 chapters in Attachment I to DOE O 5480.19, describe how each activity contributes to an effective and safe operational environment.	Working Level

Course #	Competency Description	Proficiency Level
1175-10f-06	Describe the types of operations where formal conducts of operations apply.	Working Level
1175-10g-06	Discuss how the self-assessment process is applied to ensure safe operations.	Working Level
1175-11a-06	Discuss awareness of definitions of the following types of waste that may be provided in Federal laws and regulations: * Low level waste, * High level waste, * Transuranic waste, * Mixed waste.	Working Level
1175-11b-06	Discuss the Department?s policies and practices regarding the handling and management of waste as described in DOE O 435.1, Radioactive Waste Management.	Working Level
1175-11c-06	Discuss the Department?s performance objectives and performance assessment requirements as outlined in DOE O 435.1.	Working Level
1175-11d-06	Discuss the Department?s policies on waste management including: * Generation reduction, * Segregation, * Minimization, * Pollution prevention, * Disposal.	Working Level
1175-11e-06	Discuss how the following Acts apply to and impact the Department?s waste management programs: * Federal Facility Compliance Act (FFCA), * Pollution Prevention Act of 1990, * Superfund Amendment Reauthorization Act.	Working Level
1175-11f-06	Demonstrate an understanding of the general requirements of Section 3116 of the 2005 National Defense Authorization Act regarding appropriate classification of waste.	Working Level
1175-11g-06	Demonstrate an understanding of the general requirements of the Resource Conservation and Recovery Act of 1976 as it applies to hazardous and mixed waste.	Working Level
1175-11h-06	Discuss the process for determining whether or not waste is hazardous.	Working Level
1175-11i-06	Describe the general requirements and issues associated with the transportation and packaging of radioactive wastes.	Working Level
1175-12a-06	Describe DOE O 433.1, Maintenance Management Program for DOE, to explain: * DOE?s role in the oversight of contractor maintenance operations, * The intent of maintenance management programs, * The Department?s policy and objectives for maintenance management, * The responsibilities and authorities for maintenance management programs.	Working Level
1175-12b-06	Discuss the requirements for the control and integration of contractor and subcontractor personnel in maintenance activities.	Working Level
1175-12c-06	Discuss the graded approach process by which Department line management determines an appropriate level of coverage by facility maintenance management personnel.	Working Level
1175-12d-06	Discuss how maintenance activities interface with the following as it relates to safety: * Conduct of operations, * Quality assurance, * Configuration management, * Safety SSCs, * Authorization Basis, * Design Basis, * Suspect/counterfeit items.	Working Level
1175-13a-06	Discuss the roles and responsibilities of the STSM related to implementing and maintaining configuration management programs.	Working Level
1175-13b-06	Discuss the concept of configuration management and its importance in ensuring operational safety.	Working Level

Course #	Competency Description	Proficiency Level
1175-13c-06	For the elements identified above, describe the possible effects on safe operations if they are ineffectively implemented.	Working Level
1175-13d-06	Describe a typical configuration management process.	Working Level
1175-13e-06	Given the current version of DOE-STD-1073 or its successor, discuss the system engineer concept as it applies to oversight of safety systems. Specifically address the areas of configuration management, assessment of system status and performance, and technical support for operations, maintenance activities and for Documented Safety Analysis reviews.	Working Level
1175-13f-06	Discuss each of the following elements of configuration management and how they contribute to safety and an effective configuration management program. * Program management, * Document control, * Change control, * Graded approach, * Design requirements, * Assessments.	Working Level
1175-14a-06	Define the terms "safeguards" and "security" as they apply to the DOE Safeguards and Security Program.	Working Level
1175-14b-06	Discuss a Site Safeguards and Security Plan (SSSP), to include: * Content and purpose, * Review/approval cycle, * Design Basis Threat (DBT), * Process (e.g., vulnerability assessments), * System effectiveness (PE) reporting.	Working Level
1175-14c-06	Discuss in detail the purpose, interrelationship, responsibilities, and basic requirements for the following: * Physical security, * Personnel security, * Material Control and Accountability.	Working Level
1175-14d-06	Describe the use of information security systems within DOE.	Working Level
1175-14e-06	Discuss the interrelationship between safeguards and security to safety practices and facility operations.	Working Level
1175-14f-06	Discuss the security requirements associated with the Department's foreign visitor and assignments program.	Working Level
1175-15a-06	Demonstrate an understanding of the purpose and the relationship between DOE Orders, directives, Federal regulations, and State regulations.	Working Level
1175-15b-06	Discuss the DOE directives process.	Working Level
1175-15c-06	Demonstrate an understanding of the DOE rule-making process.	Working Level
1175-15d-06	Demonstrate an understanding of the relationship between the DOE and OSHA and EPA.	Working Level
1175-15e-06	Demonstrate an understanding of the purpose of the FFCA.	Working Level
1175-15f-06	Discuss the use of Memoranda of Understanding (MOU) and Memoranda of Agreement (MOA) with external agencies and organizations.	Working Level
1175-15g-06	Discuss the purpose and scope of Standards/Requirements Identification Documents (S/RIDs), Work Smart Standards, and directives flowdown and their relationship to Contract List A and List B.	Working Level
1175-15h-06	Demonstrate an understanding of Public Law 104-113 regarding the use of industry consensus standards.	Working Level
1175-16a-06	Demonstrate an understanding of the PAAA.	Working Level

Course #	Competency Description	Proficiency Level
1175-16b-06	Demonstrate an understanding of the Act's applicability to the Department's nuclear safety activities, and specifically to each of the site's facilities and major activities.	Working Level
1175-16c-06	Demonstrate an understanding that violations of applicable nuclear safety rules and regulations are enforceable criminally and civilly.	Working Level
1175-16d-06	Demonstrate an understanding of the topics below, associated with the PAAA: * Procedural Rules for DOE Nuclear Activities (10 CFR 820), * Documented Safety Analyses (10 CFR 830 Subpart B), * Un-reviewed Safety Questions (10 CFR 830 Subpart B), * Quality Assurance Requirements (10 CFR 830 Subpart A), * Technical Safety Requirements (10 CFR 830 Subpart B), * Occupational Radiation Protection (10 CFR 835).	Working Level
1175-16e-06	Discuss the role of Federal line management with respect to implementing the requirements of the PAAA.	Working Level
1175-16f-06	Discuss the role of the site's PAAA Coordinator.	Working Level
1175-16g-06	Review the recent PAAA notices and decisions with the site's PAAA Coordinator to determine close-out status and verification of corrective actions.	Working Level
1175-17a-06	Discuss the enabling legislation and the purpose of the DNFSB.	Working Level
1175-17b-06	Identify and discuss applicable DNFSB Recommendations.	Working Level
1175-17c-06	Identify and discuss Department Implementation Plans and commitments made in response to DNFSB Recommendations.	Working Level
1175-17d-06	Discuss the roles and responsibilities of the Departmental Representative to the DNFSB as described in DOE M 140.1-1B, Interface with the Defense Nuclear Facilities Safety Board.	Working Level
1175-18a-06	Describe and explain the application of problem analysis techniques in: * Root cause analysis, * Causal factor analysis, * Change analysis, * Barrier analysis.	Working Level
1175-18b-06	Describe and explain the application of the following Root Cause Analysis processes in the performance of occurrence investigations: * Events and causal factors charting, * Root cause coding, * Recommendation generation.	Working Level
1175-18c-06	Describe the elements of an effective issue management system and its importance to safety.	Working Level
1175-18d-06	Describe the following types of accident investigations and discuss an example of the application of each: * Type A, * Type B.	Working Level
1175-18e-06	Discuss the necessary considerations that must be addressed when developing a corrective action.	Working Level
1175-18f-06	Discuss the immediate, short-term, and long-term actions taken as the result of problem identification or an occurrence.	Working Level
1175-18g-06	Describe the assessment requirements and limitations associated with the interface with contractor employees.	Working Level
1175-18h-06	Explain the essential of the below activities including: * Investigation, * Fact finding, * Reporting, * Tracking to closure, * Follow-up, * Corrective Action Implementation.	Working Level

Course #	Competency Description	Proficiency Level
1175-18j-06	Discuss the key processes used in the trending and analysis of operations.	Working Level
1175-18k-06	Discuss the key process to develop and implement metrics and performance measures, validate performance against metrics and performance measures, and trend/analyze data to establish a continuous improvement program.	Working Level
1175-18l-06	Discuss the importance and key elements of the following: * Maintenance history, * Operational incident/occurrence report data, * Security infractions, * Safety incidents, * Radiation exposure and incident reporting, * Schedule variances, * Counterfeit and suspect parts.	Working Level
1175-18m-06	Using DOE O 231.1A, Environment, Safety, and Health Reporting, and DOE M 231.1-2, Occurrence Reporting and Processing of Operations Information, discuss the role of an STSM related to reportable occurrences. Given an occurrence report, determine whether: * Review processes are adequate, * Causes are appropriately defined, * Corrective actions address causes, * Lessons learned are appropriate, * Corrective actions are completed.	Working Level
1175-19a-06	Identify the three major DOE contract types and describe the characteristics, and the advantages and disadvantages of each.	Working Level
1175-19b-06	Identify and discuss the types of contracting processes that are used to put major contracts in place.	Working Level
1175-19d-06	Discuss the technical oversight and qualifications required to assess contractor performance and the training of contractor employees.	Working Level
1175-19e-06	Discuss the fee-based evaluation process including the development of performance criteria, conduct of the evaluation, and documentation and transmittal requirements for performance.	Working Level
1175-19g-06	Discuss the intent of the revised DEAR Clause, 970.5223-1, regarding environment, safety, and health (ES&H) and the impact of contract reform on ES&H.	Working Level
1175-20a-06	Discuss the Department's policy for planning, programming, budgeting, and acquisition of capital assets as described in DOE P 413.1, Program and Project Management Policy for the Planning, Programming, Budgeting, and Acquisition of Capital Assets.	Demonstrate the ability
1175-20b-06	Define the following terms: * Baseline, * Graded approach, * Infrastructure, * Life-cycle, * Programmatic management, * Metrics and performance measures.	Demonstrate the ability
1175-20c-06	Describe the key elements of supervising/monitoring program activities and contractors.	Demonstrate the ability
1175-20d-06	Describe the purpose of schedules, and discuss the use of milestones and activities.	Demonstrate the ability
1175-20e-06	Define and compare the terms cost estimate and budget.	Demonstrate the ability
1175-20f-06	Describe the process for preparing cost estimates and budgets.	Demonstrate the ability
1175-20g-06	Define and explain the relationship between following terms: * Budgeted Cost of Work Scheduled (BCWS), * Budgeted Cost of Work Performed (BCWP), * Actual Cost of Work Performed (ACWP).	Demonstrate the ability

Course #	Competency Description	Proficiency Level
1175-20h-06	Discuss how priorities should be balanced to achieve the following: * Resources are effectively allocated to address safety, programmatic, and operational considerations, * Protecting the public, the workers, and the environment is a priority whenever activities are planned and performed.	Demonstrate the ability
1175-20i-06	Discuss DOE's budgeting process to capture funding decisions based on prioritization of work.	Demonstrate the ability
1175-20m-06	Discuss the Davis-Bacon Act as it relates to DOE financial management issues.	Demonstrate the ability
1175-20n-06	Discuss the responsibilities, authorities, and implementation requirements for DOE O 430.1B, Real Property Asset Management, at defense nuclear facilities.	Demonstrate the ability
1175-21a-06	Describe the general requirements, purpose, interrelationships, and importance of DOE O 414.1C; 10 CFR 830, Nuclear Safety Management; 10 CFR 830.120, Quality Assurance; and national or international consensus standards on quality assurance.	Working Level
1175-21d-06	Describe the DOE and contractor responsibilities and requirements for implementing a Quality Assurance Program (QAP).	Working Level
1175-21e-06	Discuss the role of STSMs with respect to DOE O 414.1C, 10 CFR 830, Nuclear Safety Management and 10 CFR 830 Subpart A, Quality Assurance.	Working Level
1175-21f-06	Describe the 10 quality assurance criteria of DOE O 414.1C and 10 CFR 830 Subpart A which address the following: * Management, * Performance, * Assessment.	Working Level
1175-21g-06	Referring to the following DOE Guides supporting DOE O 414.1C and 10 CFR 830 Subpart A, discuss the implementation of an effective QAP. * DOE G 414.1-1A, Management and Independent Assessment Guide, * DOE G 414.1-2A, Quality Assurance Management System Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements, and DOE O 414.1C, Quality Assurance, * DOE G 414.1-3, Suspect/Counterfeit Items Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements, and DOE O 414.1B, Quality Assurance, * DOE G 414.1-4, Safety Software Guide for Use with 10 CFR 830, Subpart A, Quality Assurance Requirements, and DOE O 414.1C, Quality Assurance.	Working Level
1175-21h-06	Describe the scope, purpose, and application of the safety software quality assurance requirements and work practices.	Working Level
1175-21i-06	Discuss how the approved Quality Assurance Program at a given DOE site office or contractor is applied to safety system design, construction and operations, and implementation of its Integrated Safety Management System. Address in the report how the 10 QA criteria and the 12 safety management principles/functions are integrated and the approach used, and effectiveness of the flow-down of QA criteria to subcontractors.	Working Level
1175-22a-06	Discuss the purpose and objectives of a DOE Radiation Protection Program.	Working Level
1175-22b-06	Identify and explain the general and unique radiological hazards associated with the following (as applicable to the STSM): * Plutonium operations, * Uranium operations, * Tritium operations, * Nuclear explosive operations, * Production/experimental reactors, * Accelerator operations, * Waste handling/processing operations, * Decontamination and decommissioning, * Use of radiation generating devices, * Environmental restoration activities.	Working Level

Course #	Competency Description	Proficiency Level
1175-22c-06	Discuss how the radiation protection program is related to the nuclear safety basis (and Documented Safety Analysis) for the STSM's cognizant facility(s) and activities.	Working Level
1175-22d-06	Identify and discuss the required elements of a radiation protection program including the requirements for internal audits.	Working Level
1175-22e-06	Discuss the role of the following radiation protection policy, guides and standard in establishing and maintaining a radiation protection program for a given DOE nuclear facility/activity: * DOE P 441.1, DOE Radiological Health and Safety Policy, * DOE G 441.1-series, * DOE-STD-1098-99, Radiological Control.	Working Level
1175-22f-06	Discuss the requirements delineated in DOE Order 5400.5, Radiation Protection of the Public and the Environment.	Working Level
SAF-221 Senior Technical Safety Manager Applications		
1146-00b-00	Safety Courses in Analysis	Familiarity Level
SAF-230V Accident Investigation		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-233V Advanced Human Performance		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-234V Managing Maintenance Error		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-241V Operation Readiness Review		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-242V Unreviewed Safety Question		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-243V Managing Maintenance Error		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-250 Protective Force Safety Fundamentals		
1160-20a	Identify PPE necessary during firearms use.	Familiarity Level
1160-20b	Discuss firing-range safety considerations including required procedures and controls.	Familiarity Level
1160-20c	Discuss principles of firearms safety and describe appropriate and mandated controls.	Familiarity Level
1160-20d	Discuss industrial hazards (e.g., noise and lead exposures) associated with firing ranges and describe appropriate control measures.	Familiarity Level

Course #	Competency Description	Proficiency Level
1160-20e	Describe and apply firearms safety precautions associated with DOE safeguards and security operations and exercises.	Familiarity Level
1171-02a	Describe the levels and associated responsibilities of protective force personnel with the DOE.	Familiarity Level
1171-02d	Describe typical examples of Federal or state authority granted to Protective Force Personnel.	Familiarity Level
1171-04c	Describe the procedures for investigating and reporting abnormal conditions.	Familiarity Level
1171-06a	Describe the requirements for an armed protective force.	Familiarity Level
1171-06e	Discuss firearms safety procedures related to issue duty weapons.	Familiarity Level
1171-17g	Discuss how vulnerability assessments, performance testing, and performance requirements serve as loss detection elements.	Familiarity Level
1171-28e	Describe the purpose and outcomes of a vulnerability assessment.	Familiarity Level
1171-33d	Describe the objective of Integrated Safeguards and Security Management (ISSM).	Familiarity Level
1171-35a	Describe how the design basis threat is used in safeguards and security planning.	Familiarity Level
1171-36a	Discuss the contents of the Site-Specific Security Plan, Facility Descriptions and Operational Plans and the interrelationship between them.	Familiarity Level
1171-37c	Discuss the required frequency of performance testing.	Familiarity Level
1171-45e	Discuss the use of risk analysis as it applies to safeguards and security programs.	Familiarity Level
1175-14b-06	Discuss a Site Safeguards and Security Plan (SSSP), to include: * Content and purpose, * Review/approval cycle, * Design Basis Threat (DBT), * Process (e.g., vulnerability assessments), * System effectiveness (PE) reporting.	Familiarity Level
1175-14e-06	Discuss the interrelationship between safeguards and security to safety practices and facility operations.	Familiarity Level
1177-05c	Discuss the role of the Protective Force in response to an emergency.	Familiarity Level
SAF-261V Conduct of Operations		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-270 Safety System Oversight Duties and Responsibilities		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-271 Safety System Oversight Assessments		
1146-00b-00	Safety Courses in Analysis	Familiarity Level
SAF-340V Nuclear Executive Leadership Training		

Course #	Competency Description	Proficiency Level
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-380 DOE Oversight Awareness		
1146-17f-07	Define the term "lessons learned" and explain their importance in operational safety.	Familiarity Level
1146-24a-07	Discuss the purpose and scope of DOE P 226.1A, Department of Energy Oversight Policy.	Familiarity Level
1146-24b-07	Discuss DOE's oversight model.	Familiarity Level
1146-24e-07	Describe "assurance systems" as found in DOE P 226.1.	Familiarity Level
1146-24g-07	Discuss the requirements imposed by DOE O 226.1 on the contractors that operate DOE nuclear facilities.	Familiarity Level
1151-42f	Discuss the process for, and importance of, applying lessons learned from Occurrence Reports to facility operations.	Familiarity Level
1164-15f	Describe the requirements for publishing lessons learned once an investigation is completed.	Familiarity Level
1165-13f	Describe the requirements for publishing lessons learned once an investigation is completed.	Familiarity Level
1170-23a-07	Describe and explain the contractors' lessons learned program.	Familiarity Level
1181-32a	Describe the documentation of the Department's and industry's "lessons learned" and current events.	Familiarity Level
1185-27c-07	Explain the role of lessons learned in operations, and sources for identifying lessons learned and industry experience.	Familiarity Level
SAF-381 DOE Oversight Implementation		
1164-01b	Discuss the key process to develop and implement performance indicators (measures), validate performance against performance measures, and trend/analyze data to establish a continuous improvement program.	Familiarity Level
1171-51e	Describe various data gathering techniques and the use of trending/history when analyzing problems.	Familiarity Level
1173-31e	Describe various data gathering techniques and the use of trending/history when analyzing problems	Familiarity Level
1175-18k-06	Discuss the key process to develop and implement metrics and performance measures, validate performance against metrics and performance measures, and trend/analyze data to establish a continuous improvement program.	Familiarity Level
1176-19e	Discuss the basic performance measurement tools used to monitor contractor performance.	Familiarity Level
1178-06a	Discuss the key processes used in the trending and analysis of performance information.	Familiarity Level
1178-06b	Discuss the key process to develop and implement metrics and performance measures, validate performance against metrics and performance measures, and trend/analyze data to establish a continuous improvement program.	Familiarity Level

Course #	Competency Description	Proficiency Level
1180-44c	Describe various data gathering techniques and the use of trending/history when analyzing problems.	Familiarity Level
1181-33f	Describe the mechanisms for feedback of relevant information, such as trend analysis and instrumentation performance/reliability data, to identify necessary program modifications.	Familiarity Level
1181-35h	Describe various data gathering techniques and the use of trending/history when analyzing problems.	Familiarity Level
1183-30e-07	Describe various data gathering techniques and the use of trending/history when analyzing problems.	Familiarity Level
SAF-701 Safety Basis Overview		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-710 Safety Basis Document Preparation - Advanced (DOE STD 3009)		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-720 Hazard Identification		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-745 Airborne Release Fractions & Respirable Fractions		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-780 Accident Analysis Techniques		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
SAF-785 Technical Safety Requirements Developer		
1146-00a-00	Vendor Course - Competencies in Analysis	Familiarity Level
Security Officer FACTS Seminar (FIT-111)		
1171-00a	S&S Courses in Analysis	Familiarity Level
Special FITA Event/Presentations (FIT-100)		
1171-00a	S&S Courses in Analysis	Familiarity Level
TRF-100 Tactical Response Force 1		
1171-00a	S&S Courses in Analysis	Familiarity Level
TRF-100D Tactical Response Force 1 Prerequisite		
1171-00a	S&S Courses in Analysis	Familiarity Level
TRF-200 Tactical Response Force 2		

Course #	Competency Description	Proficiency Level
1171-00a	S&S Courses in Analysis	Familiarity Level